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IDRIS & CO.'S NON-ALCOHOLIC CORDIALS.

TO MEET THE GROWING TENDENCY OF THE AGE TOWARDS TEMPERANCE,

We have perfected a choice variety of Most Delicious Beverages possessing all the Piquancy of Spirituous Liquors; but, being free from Alcohol, they must satisfy the most Scrupulous Teetotaller that he is not imbibing Alcohol in any form. Our Non-Alcoholic Cordials also satisfy the most ardent lover of Wines, Spirits, or Beers, and whilst being drunk have all the taste of a Spirituous Liquor, and are most deceptive, in that the imbibier feels astonished that he perceives no after vinous effect, whilst they relieve in a decidedly gratifying manner Thirst or Depression.

IDRIS & CO.'S FRUIT CORDIALS AND WINTER BEVERAGES

Are INNOCENT and HEALTHY, may be used with HOT or COLD WATER, and in both WINTER and SUMMER.

No person need object on any score to partake of them. Those named are now available, and only need to be tried to receive the approbation of all, and, being INEXPENSIVE, are within the reach of everybody.

For the production of "Cobblers" and other fancy drinks by blending with wines and spirits, aerated and iced waters, they are invaluable.

RASPBERRY
STRAWBERRY
AROMATIC LIME FRUIT
APPLE PUNCH
RED CURRANT
MORELLA CHERRY
SCOTCH TODDY

Damson
Orleans Plums
Elderette
Blackberry
Mulberry
Absinthe
Maraschino
Chantreuse

Black Currant
Pine Apple
Tangerine Orange
Ginger Ale
Vanilla
Gingerette
Ginger Punch
Noyeau

ORANGE BITTERS
LEMON
NECTAR
PEPPERMINT
WINTER PUNCH
MEAD

Aniseed
Alespice
Spiced Ale
Shrub
Hop
Cloves
Sarsaparilla
Spruce

TRADE PRICES.

Reputed $\frac{1}{2}$ -pints (8 oz.), 4s. 6d. per dozen.

Reputed pints (13 oz.), 5s. 9d. per dozen.

Imperial pints (20 oz.), 8s. per dozen.

Reputed quarts (27 oz.), 10s. per dozen.

Limetta, Lime Juice Cordial, in reputed quarts, at 7s. 6d. per dozen; Palatable Lime Juice in reputed quarts, at 9s. per dozen. Returned bottles credited at 1s. per dozen.

ELEGANTLY LABELLED AND CAPSULED.

IDRIS & CO. guarantee the sale of these goods, and will at all times give credit in full for any that may be returned.

IDRIS & CO.,

Manufacturing Chemists, Mineral Water Makers, Syphon & Seltzogene Manufacturers, Export & Import Merchants,
ASCHAM ST., KENTISH TOWN, LONDON, N.W., & 3 WEST ST., FINSBURY CIRCUS, E.C.
TELEPHONE NO. 7522.

VEGETABLE BUTTER COLOURING

(OF OUR OWN MANUFACTURE),

FOR imparting to the Butter at all seasons of the year that rich cowslip tint which is such a desideratum to all producers. It is rapidly superseding the Danish and all other makes, being more efficient and cheaper ; it does not crust on the bottles, as is the case with the foreign preparations ; is free from Aniline, and does not colour the Buttermilk.

To Purchasers of Bulk it affords a considerable source of profit, and is well worth the attention of Druggists in the agricultural districts.

Price **1/2** per lb. ; **1/** in 2 gal. Bottles.

Special Terms to large consumers.

To meet the views of many of our friends, we have commenced to put this article up in bottles also, under the title and trade-mark of the "Silver Churn." It is very attractively got up, and will command a ready sale ; the bottles contain more than either Danish or American, while the price to the retailer is lower than that of any other Butter Colouring in the Market.

Price in Bottles { 6d., 1/-, 2/- Size } Less 10 per cent. Discount.
 { 4/- 8/-, 16/- Per doz. }

A handsome Show Card, printed in colours, and suitable Counter Bills may be had on application.

*Copy of Testimonial received May 18, 1886, from Carrick's Cumberland Dairy Co. (Limited),
 Low Row, near Carlisle :—*

" We have subjected your Silver Churn Butter Colouring to a protracted and severe trial, and it appears to us to be the very best article obtainable ; the absence of any objectionable taste and smell, " the beautiful straw colour imparted to the butter, as well as the very small quantity required, combining " to render it both efficient and economical. We have found a teaspoonful sufficient for 24 quarts of cream " at this season of the year.

" By continuing the manufacture of a quality equal to that you have supplied to us, you cannot fail " to secure the good opinion and patronage of all users.

" (Signed) Yours faithfully, J. A. STEPHENSON,
 " Manager and Dairy Expert."

PROPRIETORS AND MANUFACTURERS—

OLDFIELD, PATTINSON & CO.,
 WHOLESALE DRUGGISTS,
 17 TODD STREET, MANCHESTER.

May be ordered through any Wholesale House, or of our

London Agent—B. SUART, 24 Queen Victoria St. (who holds Stock of all sizes).

Liverpool Agents—AYRTON & SAUNDERS, Duke Street.

Telephone No. 7525.

Prize Medals.
CALCUTTA & VIENNA,
1884 & 1885.
LONDON 1881.

Cable Address—IODINE, LONDON.

FLETCHER, FLETCHER & STEVENSON,



NORTH LONDON CHEMICAL WORKS,



HOLLOWAY, LONDON, N.

MAKERS OF

CITRATE OF IRON AND QUININE

FLUID EXTRACTS

(EVAPORATED IN VACUO).

Pepsine Pure P.B. Pepsine Porci.

LIQUID AMMONIA ·880 AND CARBONATE.

RESUBLIMED IODINE.

QUININE, STRYCHNINE, AND OTHER ALKALOIDS,

ACID CARBOLIC PURE, P.B.,

BEECHWOOD CREASOTE

(INSOLUBLE IN PRICES GLYCERINE),

CONCENTRATED FRUIT ESSENCES.

TINCTURES AND SPIRITS SHIPPED IN BOND.

Sulphuric, Nitric, Phosphoric, AND EVERY OTHER
PURE ACID.

MAUBERT'S

GENUINE BROWN WINDSOR & HONEY SOAPS
ARE THE BEST AND MOST ECONOMICAL.

ALTHEA

A NEW SOAP ALREADY IN GREAT DEMAND ON
THE CONTINENT, PACKED IN
ELEGANT GLOVE OR HANDKERCHIEF BOXES
CONTAINING
12 TABLETS, weighing each about 5 oz., price 3/0 per box.
6 TABLETS, " " " price 1/9 per box.
WHOLESALE PRICES ON APPLICATION TO

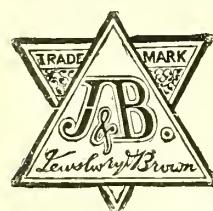
6 LOVE LANE, ALDERMANBURY, E.C.

Matthews's Fullers Earth.

Used in
the Royal
Nurseries,
and highly
recom-
mended by the Faculty; it
protects the Skin from cold
winds, chaps, &c., and pre-
serves the Complexion.

SOLD BY ALL THE WHOLESALE HOUSES.

ROUSE & CO., 12 WIGMORE STREET, LONDON.



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

STOP!!

25/--worth of A1 MENTHOL will realise 48/-,

Or a Profit of 23%, which is over 90 per cent.

Send a cheque for 25/-, and I will forward either of the following, together with a HANSMON GLASS-FRONTED SHOW CASE and ROUND HANDBILLS:—

Order as	PARCEL A.	PARCEL B.	PARCEL C.	PARCEL D.
Parcel	4 dozen 6d.	3 dozen 1s.	8 dozen 6d.	4 dozen 1s.
A B C or D.	2 " 1s.	2 " 6d.		

Illustrated
Price List post
free on
application.

BE READY

FOR

WINTER SEASON.

of all Wholesale Houses, or direct from J. G. SHIRLEY, 30 Paternoster Square, E.C.

GOVERNMENT DISINFECTANT

• CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & $\frac{1}{2}$ Packages •
CARBOLIC POWDER (PINK) in TINS 6d & 1/-
CARBOLIC FLUID in 6d & 1/- STOPPED BOTTLES • CARBOLIC SOAP N° 1 & N° 2
FREE FROM POISON AGREEABLE IN SMELL. THE GOVERNMENT SANITARY C°, TO BE HAD FROM ALL WHOLESALE DRUGGISTS.



CLARKE'S PATENT "FAIRY" LAMPS AND PATENT "FAIRY" LIGHTS

REGISTERED TRADE MARK "FAIRY."

Patented in Great Britain, France, Germany, Belgium, Austria, and the United States. The Trade Marks are registered in each Country.

**£50 REWARD.
FAIRY LAMPS.**

The Patentee having been informed that spurious lamps are being sold as *Fairy* Lamps, the above reward will be given for information that shall lead to the conviction of anyone selling a lamp as a *Fairy* Lamp that has not upon it the Trade Mark *Fairy*.

**CLARKE'S
PATENT PYRAMID AND
FAIRY LAMP WORKS,
CHILD'S HILL,
LONDON, N.W.**

The continuous introduction by the Patentee of new and beautiful designs for using with the "Fairy" Lights renders it necessary to have the best means of communicating the same to foreign buyers and the trade generally; he has therefore made arrangements with the proprietors of "The Pottery Gazette" to insert drawings of his new Patterns every month.

Full sheets, with prices, will always be forwarded on application.

FAIRY LAMPS.

Buyers can now see all the newest patterns at the Works, Child's Hill, only a half-hour's ride from Moorgate, Aldersgate Street, Farringdon, or King's Cross (Metropolitan Stations); frequent trains by the *Midland* Railway to Child's Hill Station.

The Works are only a few minutes' walk from the Station.

SAM^L. CLARKE'S PATENT "FAIRY" LAMPS.

INFRINGEMENT.

To Mr. SAMUEL CLARKE.
SIR,

I beg to express my regret for having infringed your Registered Trade Mark in the title "Fairy" connected with Lamps by the sale under that name of a spurious Lamp not of your manufacture, and in consideration of your not instituting any proceedings against me in respect of such infringement, I undertake for the future not to sell or offer for sale any Lamps under that name.

E. HAYWARD,
18 Terminus Road, Eastbourne.

Dated 24th September, 1886.

INFRINGEMENT.

To Mr. SAMUEL CLARKE.

SIR,

I beg to express my regret for having infringed your patent for "Fairy" Lamps and your Registered Trade Mark in the title "Fairy" connected with such Lamps by the sale under that name of spurious Lamps not of your manufacture, and in consideration of your not instituting any proceedings against me in respect of such infringement I undertake for the future not to sell or offer for sale any Lamps under that name.

(Signed) W. COUPE,
September 17th, 1886.
Eastbourne.

PATENT "FAIRY" LAMPS.

IMPORTANT.

Upon special occasions, such as lighting a Ball Room, the "FAIRY" LAMPS should be lighted very early—the last five hours' burning being far more brilliant than the first; so that, if required to last until Two o'clock in the morning, they should be lighted at Four o'clock p.m.

If not lighted until Six or Seven o'clock, the best hours of the "FAIRY" LIGHTS would be wasted.

N.B.—The best lights for using in the "FAIRY" Lamps are the "FAIRY" Lights. If a CHEAPER Light is required, the Patent Pyramid Lights are the best substitute—at HALF THE COST. Both can be obtained from all First-class Lamp and Candle Dealers. In case of difficulty, write to the Patentee, who will give the address of his nearest Agent. Oil or Common Night Lights should never be used in the "FAIRY" Lamps. They smoke, smell, and are an abomination.

NOTICE.

"FAIRY" LAMPS.—The Patentee has been informed that certain unscrupulous Manufacturers are infringing his Patent Rights in the above Lamps; he begs to inform Trade and Public generally that all the Lamps made by him bear his Trade Mark, "FAIRY" and "CLARKE'S PATENT."

Anyone selling a Lamp as a "FAIRY" Lamp, or infringing his Patent in any way, will be liable to an action, and proceeded against accordingly, both Manufacturer and Vendor being equally liable.

N.B.—Anyone having sold to them a Lamp as a "Fairy" Lamp without having upon it the words "Fairy, Clarke's Patent," are solicited to communicate with the Patentee.

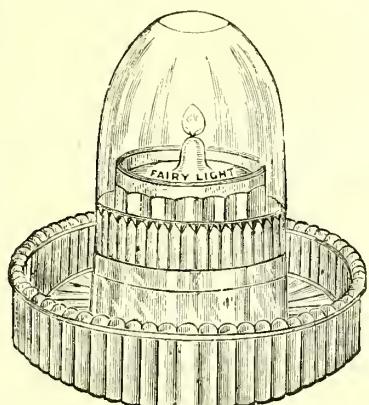
THE "FAIRY" LAMPS ARE PATENTED IN GREAT BRITAIN, FRANCE, GERMANY, BELGIUM, AUSTRIA, AND THE UNITED STATES, AND TRADE MARK REGISTERED.

SOLD WHOLESALE BY THE PATENTEE,

SAMUEL CLARKE,
"PYRAMID" & "FAIRY" LAMP & LIGHT WORKS,
Child's Hill, LONDON, N.W.

AND NEWARK, NEW JERSEY, U.S.A.

PATENT "FAIRY" LAMPS and "FAIRY" LIGHTS.—SAM'L. CLARKE, Patentee.

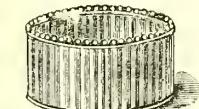


No. 17.—FLOWER CIRCLE.

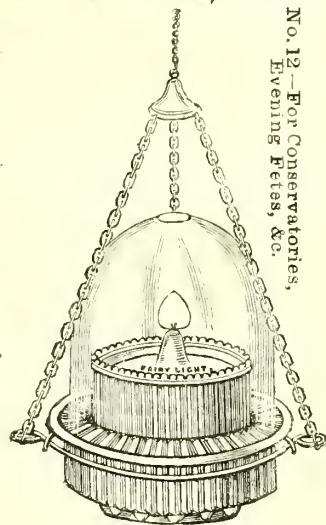
PRICES ON APPLICATION.



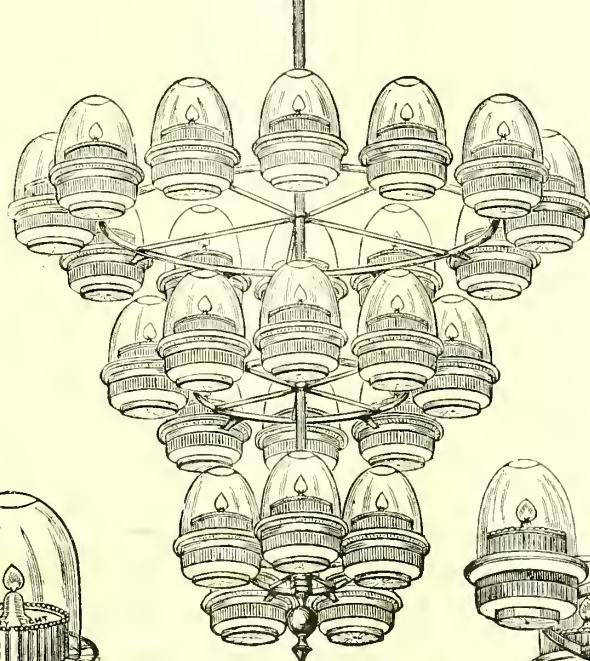
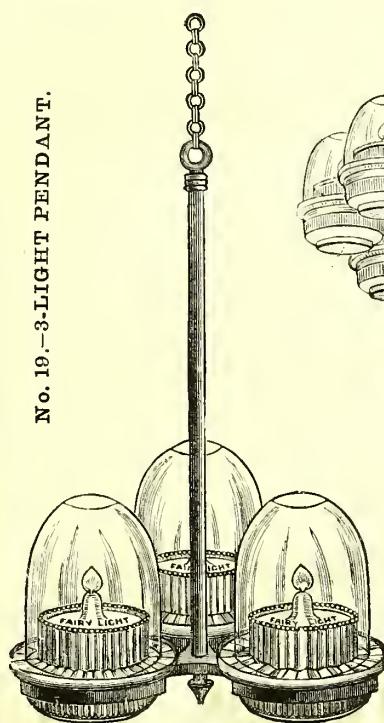
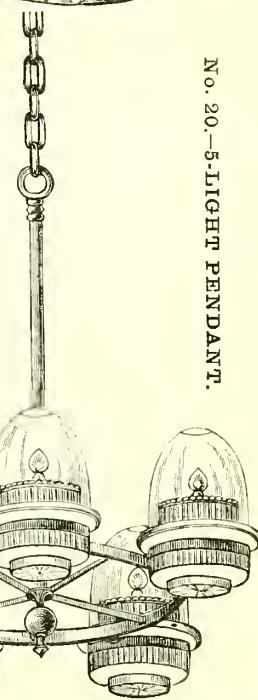
"FAIRY" LIGHT.



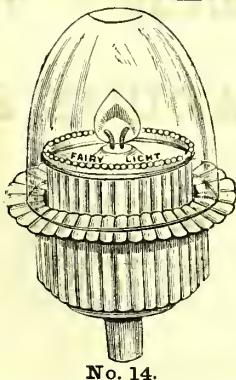
"FAIRY" GLASS.

No. 12.—For Conservatories,
Evening Parties, &c.

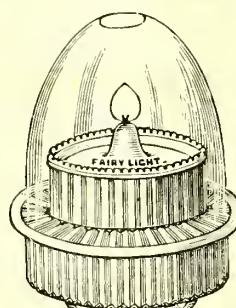
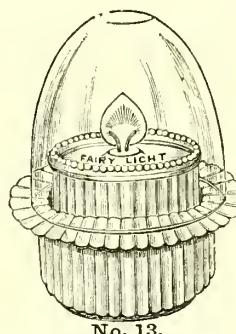
No. 19.—3-LIGHT PENDANT.

No. 22.
25-LIGHT CHANDELIER.

No. 20.—5-LIGHT PENDANT.



No. 14.

No. 10.—For Brackets,
Flower Borders, Table
Decorations, &c.

No. 13.

Patented, and Trade Marks Registered, in Great Britain, France, Germany, Belgium, Austria, and the United States.

MANUFACTORY—CHILD'S HILL, LONDON N.W.

Show Room: 31 Ely Place, Holborn Viaduct, E.C. America: Pyramid & Fairy Light Manufactory, Newark, New Jersey.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

Telegraphic Address—
“PYRAMID LONDON.”



Telegraphic Address—
“PYRAMID LONDON.”

*Registered Trade Mark for
Lamps
“FAIRY.”
Stamped on every Lamp.*

SAML. CLARKE'S
(NEW PATENT)

*Registered Trade Mark for
Lights.
“FAIRY.”
Stamped on every Light.*

“FAIRY” LAMPS & “FAIRY” LIGHTS

FOR ORNAMENTALLY LIGHTING
DRAWING AND BALL ROOMS, CONSERVATORIES, EVENING FETES,
TABLE DECORATIONS, &c.

These Lamps are made entirely of Glass; thus the greatest amount of light possible is obtained, with absolute SAFETY from Fire and dropping of grease—both inseparable with Candles. Each Lamp is fitted with Opal Shade, and packed in a Cardboard Box.

The PATENT “FAIRY” LIGHTS have double wicks, give a beautiful soft steady light; are always the same height, so essential when placed before a mirror, and the last hour's burning is as brilliant as the first; are not affected by the strongest draught, require no attention after lighting, and will burn upwards of 10 hours, at a very moderate cost; they can be instantly extinguished by use of the “Fairy” Extinguisher supplied with every Lamp, and readily re-lighted.

The Lamps require no cleaning, AND NEVER WEAR OUT. When burning they fully realise their title of “FAIRY LIGHTS.” The Lights are sold in boxes containing 6 Lights.

Pyramid Nursery Lamp Food Warmers, Pyramid Night Lamps,
and Pyramid Night Lights, prices same as last year.

Patent Pyramid and
Fairy Lamp Works,

CHILD'S HILL, LONDON, N.W.

SHOW ROOMS:

31 ELY PLACE, HOLBORN VIADUCT, E.C.

UNITED STATES:

Patent Pyramid & Fairy Lamp Works, Saml. Clarke, Patentee, Newark, New Jersey.

N.B.—The “Fairy” Lamps and “Fairy” Lights are patented in Great Britain, France, Germany, Belgium, Austria, and the United States.

The Trade Marks are also Registered in all the above Countries.

WHOLESALE PRICE LISTS ON APPLICATION.

JAMIESON & CO.,

MANUFACTURERS OF

Harness Composition,

PLATE POWDER,

OIL PASTE, AND LIQUID

BLACKING, INK, DUBBING, AND GUM.

LONDON:

35c Skinner St., CLERKENWELL.

ABERDEEN:

WHITEHOUSE STREET.

BURROUGHS
Best

Cale St.
Distillery,

Methylated
Spirits

CHELSEA,
S.W.
AT LOWEST PRICES.

Also

Best
Miscible

Naphtha

FINEST WOOD NAPHTHA.

JAMES BURROUGH,
LONDON, S.W.

BALL DENOTES
COLOUR OF PAINT.

OIL BOILERS, REFINERS & MERCHANTS.

Export Orders receive special and prompt attention.

COLTHURST & HARDING,

PHOENIX COLOUR WORKS, BRISTOL,

Contractors to the Admiralty, the India Office, and
leading Railway Companies. Manufacturers of

WHITE LEAD, ZINC WHITE,**PAINTS & COLOURS** OF ALL KINDS.MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

TEREBINE & PATENT DRYERS.

HIGH-CLASS VARNISHESOf all kinds, for Coachbuilders, Decorators,
and Japaners.

CHLORIDE OF LIME!

IN AIRTIGHT WATERPROOF
INVENTORS AND MANUFACTURERS

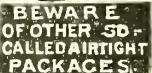
& ODOURLESS PACKAGES
NATIONAL CHEMICAL CO., LONDON



THE N. C. COS. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN

ALWAYS BE RELIED UPON TO GIVE SATISFACTION.

KEPT IN STOCK BY ALL WHOLESALE DRUGGISTS &c.
SEE THEIR PRICE LISTS.



B. NOAKES & CO.,

MANUFACTURERS OF

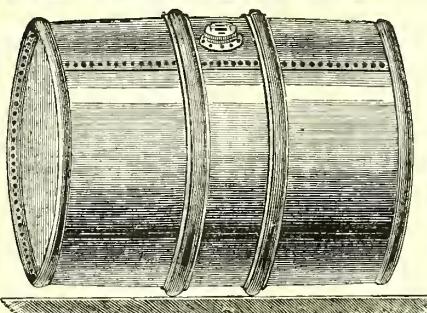
Metallic Casks, Drums, & Kegs

ENAMELLED, PLAIN, AND DECORATED

TIN CANISTERS AND BOXES,FOR PACKING CHEMISTS' AND DRUGGISTS'
SUNDRIES.**ENAMELLED SHOW CARDS.**

IRON BARRELS,
CAPACITY 40 TO 120 GALLONS
AS PER ILLUSTRATION.

Cable and Telegraphic Address—
"NOAKES LONDON."



These large Iron Casks, similar to sketch, can be handled with equal facility to wooden barrels, and, owing to their strength and durability, can be used over and over again for an indefinite period. They are perfectly liquid tight, being tested at a very high air pressure, and, unlike wood, do not absorb any of the contents. They are all fitted with interchangeable screw bungs, and can also be fitted with screw plug in head, for draw-off tap.

They are specially adapted for all kinds of Chemical Products, Sulphuric Acid, Glycerine, Spirits, Oils, Turpentine, Petroleum, Benzoline, Varnishes, Tar, Naphtha, Mineral Extracts, and Inflammable Liquids of every description.

We are making them in three qualities, "Black Iron," "Lead Coated," and "Tinned."

PRICE LIST ON APPLICATION.

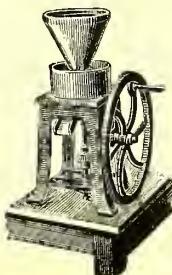
Offices and Works: 142 SPA ROAD, BERMONDSEY, LONDON, S.E.

FOLLOWS & BATE, LIM., Engineers,

Dutton Street Works, MANCHESTER.

HORIZONTAL**MILL.**

For Dry Powders.



IMPROVED & LATEST MACHINERY

FOR

DRUG GRINDERS,

WHOLESALE

Chemists & Druggists

&c.



PARIS, 1878.



VIENNA, 1873.

PERKEN, SON & RAYMENT

(LEJEUNE & PERKEN),

ESTABLISHED 1852,

Manufacture

Catalogue Free.

SPECTACLES.—SPHERICAL, CYLINDRICAL, SPHERO-CYLINDRICAL.
MICROSCOPES, TELESCOPES, THEODOLITES,
SEXTANTS.

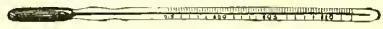
ELECTRIC APPARATUS.—MEDICAL AND OTHERWISE.

BAROMETERS.—MERCURIAL AND ANERIDIC.

OPERA, FIELD, AND MARINE GLASSES.

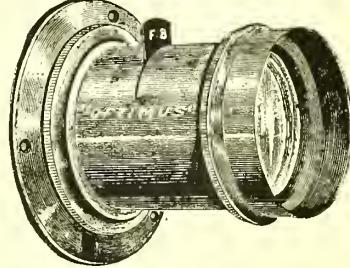
SPECIFIC GRAVITY INSTRUMENTS.

THERMOMETERS.—CLINICAL, CHEMICAL, AIR, &c., &c.



MAGIC LANTERNS OF ALL SIZES.

PHOTOGRAPHIC CAMERAS, LENSES, &c., &c.



Hatton Garden, London, E.C.

JAMES TOWNSEND, Medical Label Printer, EXETER.

**TOWNSEND'S
1887
ALMANACKS**

The UNIVERSAL.
The BOUQUET. The PURSE.
Before ordering your Almanack
send for Samples and
compare.

Crown 8vo.
7½ X 4¾.
5,000 6/9 10,000 11/6

Chemists' Handbills.

Demy 8vo.
8½ X 5¾.
5,000 11/6 10,000 18/-

LITHO.
1,000 9/6
3,000 18/- 5,000 25/-

Chemists' Memorandums

TYPE.
1,000 6/-.
3,000 15/-, 5,000 20/-

JAMES TOWNSEND, Medical Label Printer, EXETER.

IT WILL PAY YOU to send for Estimates to
BOWERS BROTHERS. 89 BLACKFRIARS ROAD, LONDON, S.E.

10,000 Good Effective Handbills, 7½ in. by 5 in.	14/-	Bowers' Manifold Order, Invoice, and Message Books 250 leaves, 5/-
1,000,000 do.	do.	Memorandums per 1,000 8/-
100,000 Pamphlets	£36	Superfine Envelopes, name on flap per 1,000 4/- & 5/-
Superfine Fly Leaf Note Paper	£25	1,000 Posters, 25 in. by 40 in. £2 15/-
Seal, Powder, Cash, Prescription and Recipe Envelopes in all qualities and in every style of printing, Counter and Show Bills, Trade Catalogues, Prices Current Business Circulars, and Ornamental Advertising Books at most moderate charges. Specimens and Estimates free.		

DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.
A liberal discount to large consumers. Carriage paid on parcels of 40s. and upwards.

ALMANACKS FOR 1887.

NEW AND ARTISTIC DESIGNS.

FORD, SHAPLAND & CO., Medical Label and General Printers, etc.,
6 GREAT TURNSTILE, LONDON, W.C.,
Will be pleased to forward specimens and prices on application, post free.

CHEMISTS' COUNTER BILLS,

ON GOOD PAPER, AT LOWEST PRICES ever offered.

10,000 CROWN 8VO. BILLS
(7½ in. x 5 in.)
10,000 DEMY 8VO. BILLS
(9 in. x 5½ in.)
ALL OTHER SIZES AT EQUIALLY LOW RATES. SAMPLES AND PRICES ON APPLICATION.

LABELS of every description, SLIP LABELS, 10,000 (10 kinds) 1s. per 1,000. PRICE LISTS, Pamphlets, Circulars, Billheads, Memorandums, Cards, and all kinds of Printing and Stationery required by Chemists at most Moderate Prices. STOCK SHOW CARDS, Gold or Black, Gilt Bevelled Edges, size 10 in. x 6 in. for various specialities; Samples 9d. each, post free. SOLE AGENTS for CHARLES RICHARD'S PATENT PERFECT TUBE CLEANER FOR INFANTS' BOTTLE TUBES, 6s. 6d. per gross; Carded, 8s. per gross.

AGENTS FOR REGISTRATION OF TRADE MARKS. DESIGNS FURNISHED IF REQUIRED.

ROBERT GIBSON, MEDICATED LOZENGE
MANUFACTURER,

Carlton Works, Erskine Street, Hulme, MANCHESTER, and 1 Australian Avenue, LONDON, E.C.

EXPORTER OF

LOZENGES, BOILED SUGARS, & JUJUBES TO ALL PARTS OF THE WORLD.

SEE PAGE ADVERTISEMENT, JANUARY 15, 1889, No. 110.

SOLE AGENTS FOR UNITED STATES—WRIGHT & RICH, NEW YORK.

"Concilio et labore."

THE MANCHESTER COLLEGE OF PHARMACY,

225 and 227a Oxford St., Manchester.

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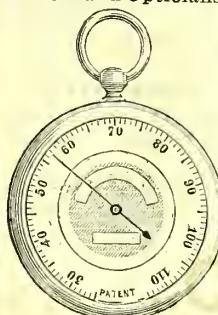
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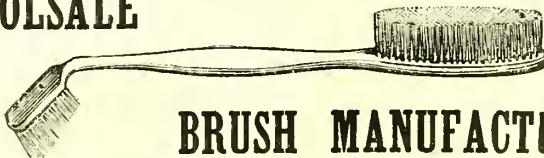
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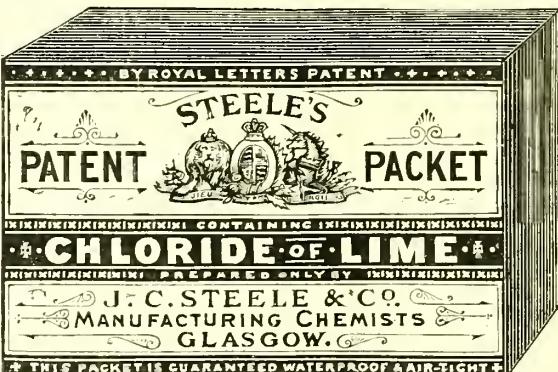
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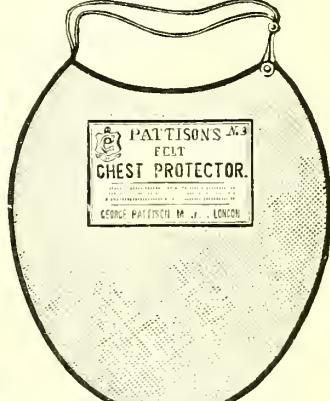
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Dobell, Dr. (Bournemouth)

BOTTLES

Ayrton and Saunders
Barnett and Foster (the
"Eclipse" Stopped)
Bratty and Hincliffe
Brooks, Peel (Perfumery)
Glasgow Apothecaries' Co.
Harris and Co.
Hearn, Ridell
Hunt, Bottle Caps
Isaac, E., and Co.
Kilner Bros.
Lang, J., and J.
Poths
Simcock, T.
Simeck, W.
Thompson, Millard and Co.
Toogood (Feeding)
Vale

BOXES

Austin and Co. (Cardboard)
Ayrton and Saunders (Willow)
Barnett and Hincliffe
Estes' Turned Wood
Metz, Paul (Pine and Willow)
Noakes, B., and Co.
Robinson and Sons (Cardboard)
Rogers, J., and Co.
Self-Opening Tin Box Co.

BROMIDIUM

Battle and Co.

BRUSHES

Dukas and Co.

BUTTER COLOUR

Bush, W., Son, and Co. (Mari-
goldine)
Oldfield, Pattinson and Co.

CAMPFIRE

Howards and Sons (pathic)
Keene and Ashwell (Homeo-
May and Baker

Murray, Sir James (Fluid)

CAPSULES

Botts and Co. (Metallic)
Denoual, J. (Medicinal)

Hooper, E., and Co.

CARMINE

Bush, W. J., and Co.
Sellers

CEMENT

Foulkes

Kay (Coaguline)

CHALK PRECIP.

Dunn and Co.
Levermore, Aug., and Co.

CHEMICALS

Bramwell, E., and Son
Brunner, Mond and Co. (Bicar-
bonate of Soda)

Bush, W., and Co.

Dunn and Co.

Gaskell, Deacon and Co. (Bi-
carbonate of Soda)

Howards and Sons (Pharma-
ceutical)

May and Baker

Smith, T. and H.

Summer, R., and Co.

Sutton and Co. (Volumetric
Analysis)

Tyke and King

Walker, Troke and Co.

Zimmermann, A. and M.

CHEST PROTCTS

Evans, Sons and Co.

Lynch and Co.

Maw, Son and Thompson

Pattison, G.

CHLORODYME

Bage, T., Bryton, and Co.
Daventor (Brown's)

Freeman

Towle, A. P.

CHLOROFORM, &c.

Duncan, Flockhart

Macfarlan, J. F.

Smith, T. and H.

Zimmermann

COCAINE

Howards and Sons
McKesson and Robbins (Hydro-
chloride of)

COCOA & CHOCOLATE

Cadbury Bros.

Fry (Malted)

COD-LIVER OIL

Allen and Hanburys
Baiss Bros.
Burroughs, Wellcome and Co.
Evans, Sons & Co.
Carr, Graham and Co.
Hertz and Collingwood
(Jensen's)

Hooper, B., and Co.
Smith, T. J.
Southall Bros. and Barclay (Al.)

COFFEE

George and Welch (Dandelion)
Symington (Various Essences)

CMPRSSD MDNS:

Hooper, B., and Co.
Leo's Tablets
Newherry, F., and Sons

CORN CURES

Robinson, B.
Young's

COTTON WOOL.

Haynes and Co.
Morgan Crucible Co.
Pat. Plumbago Co.

CRUCIBLES

Rimmele (Rozallum)
Sutton, O., and Co.

DENTIFRICES

Beddard, J.
Jewshury and Brown
Martin, J. W. (Rozallum)
Rimmele

DENTISTRY

Buck, F. (Lessons)
Jones, Dr. C. H. (Mechanical)

DISINFECTANTS

Government Sanitary Co.
Harrison and Co. (Hydroleine)
National Chemical Co.

DOG MEDICINES

Spratts (Patent) ("Fihirne")

DRUG MILLS

Bailey & Co.
Carter, J. H.
Follows and Bate (Entrps.)

DRUGGISTS' SUN.

Ayrton and Saunders

Baiss Bros.
Bourne, Johnson

Evans, Lescher and Webb

Lairitz (Pine Wool)
Lynd and Co.
Maw, W. R.

Maw, S., Son and Thompson

Mary, Roberts and Co.

Newbry, F., and Sons

Schutze and Co.

Simeck, W.

Thompson, Millard

Toogood

DUBBIN

Jamieson and Co.

DUTCH MDNS:

Bieber, J. D.

DYES

Ayrton and Saunders

Judson's (Patent Show Case)

EAU DE COLOGNE

Farina, J. M. (Gegenbauer)

ELECTRIC APPAR.

Derton, F., and Co.

Orme and Co.

ENEMAS

Ingram and Son

Lynch and Co.

Schutze and Co.

ENGRAVERS

Barker, W., and Son

ESSENCES, FRUIT AND SOLUBLE

Bratty and Hincliffe

Bush, W. J., and Co.

Fletcher, Fletcher and Steven-

son

Jackson, J., and Co.

May and Baker

Macdonald, W.

Stevenson and Howell

Summer and Co. (Ginger Ale)

Sutton, Francis and Co. (Stan-

dard Solutions)

Tyke and King (Pear and

Pineapple)

EXTRACT, MEAT

Brand and Co.

Burgess, Burbidges and Co.

"The Kochi"

Coleman & Co.

Liebig Co.

Potts (Leube Rosenthal)

HOPS

British Hop Packing Company

HARNESS POLISH

Jamieson and Co.

ETHER

Duncan, Flockhart and Co.
Howard and Sons (Chloric)
May and Baker

Rohins

ESSENTIAL OILS

Bush, W., and Son (Imps.)
Bush, W. J. (Lemons, &c.)

Clay, Dod & Co.

Cocking (Japan Peppermt.)

Jackson, J., & Co. (Peppermt. &c.)

May and Baker

Reeves, Tompsett (Eucalyptus)

Stallman and Fulton

Stevenson and Howell

Vogt, G.

EXTRACTS, FLUID

Baiss Bros.

Barber, G., and Co.

Burgoyne, Burbidges

Fletcher, Fletcher & Stevenson

Howards & Sons

Stearns, F., and Co.

Thompson, Henry Ayscough,

and Son

FEEDING BOTTS.

Bourne, Johnson and Co.

Hearn, Ridell and Co.

Kilner Bros.

Lang, J., and J.

May, Roberts, and Co.

Thompson, Millard and Co.

Toogood, W. ("The West-

minster")

FILTERING

Doulton and Co.

Dunlop, Mitchell and Co.

Maignen (Filtre Rapide)

Silicated Crbn Filtr Co.

FOOD, INFANTS' AND INVALIDS

Clarke, S. (Food Warmers)

Hearon, Squire & Francis

MacLean's Valentines

Nestle, H.

Savory and Moore (Pancreatic)

(Peptonised Milk)

Southall Bros. and Barclay

(Prepared Malt)

Van Abbott (Diabetic)

FORMULE

Brooks, T.

FULLER'S EARTH

Chubb, J., and Co.

Hyman, J.

Rouse and Co.

FUNNELS

Maud, W. R. (Self-acting)

GINGER ALE

Mills, R. M.

Ross and Co.

Schweppes (Dry)

Summer, R., and Co.

GINGER - BEER POWDERS

Kemp and Son

GLYCERINE

Fink

Price's Candle Co.

GRANULAR PREP.

Allen and Hanburys

Bush, W., and Co.

Goodall, Backhouse and Co.

Stearns, F., and Co.

GRINDING MCHNS

Bracher and Co.

Carter's Disintegrators

Follows and Bate

Werner and Pfeiferer

GUMS

Fink (Arabic, &c.)

GUTTAPERCHA

Duncan, Flockhart

Stevens, F. A. (White)

HAIR PREP.

Ayrton and Saunders

Caper, W. B. (Crimodone)

Cheesrough Minif. Co.

James and Co. (Herbl. Pom.)

Rimmel

Sturrock's Oleoquinine

Towle's Camourine

Towle's Toilet Cream (Thorn-ton)

HOMOEOPATHIC

Bristol and W. of England

Epps, James, and Co.

Gilbert, W.

Keene and Ashwell

Leath and Ross

Thompson and Capper

HOPS

British Hop Packing Company

HARNESS POLISH

Jamieson and Co.

HERBALISTS

Butler, McCulloch

Potter and Clarke

HOSPITALS

London Homeopathic

ICE

Barnett and Foster

INHALERS

Evans, Sons and Co.

Maw, S., Son and Thompson

INK

[See MARKING.]

Antoine

Bewley and Draper

Duncan, Flockhart

Jamieson and Co.

INSECTICIDES

Galzy, E.

Summer, R., and Co.

Vogt, G.

Woolley and Son (Dalmatian pdr)

JUJUBES

Allen and Hanburys

Bage, B., and Co. (Chldrn)

KETCHUP

Tyler, J.

LABELS

Blake and Mackenzie

Ford, Shapland and Co.

Townsend (Exeter)

LANOLINE

Burroughs, Wellcome and Co.

MINTCH

Boyle, J. (Candy)

MINTCH

Boyle, J. (Candy)

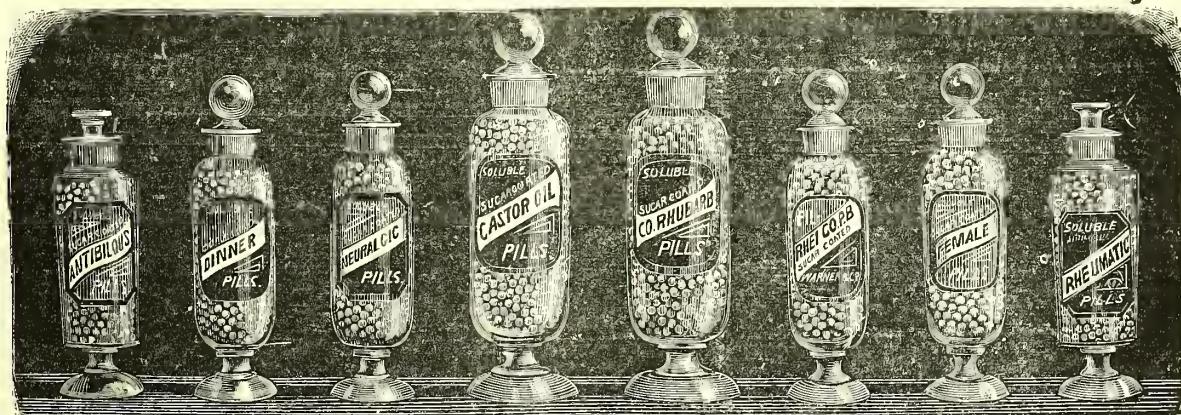
OCT. 16, 1886.

THE CHEMIST AND DRUGGIST.
SUPPLEMENT

III

PILLS (Coated, &c.)	PORTABLE FURNCS	SHOP FITTERS	STARCH	VACCINATION
Beecham Dodd and Co. Evans, Sons and Co. Halloway "Mc K. & R." (ovoid-capsuled) Smith, W. F. Warner, W. R. (Coated) Wyleys and Co. (Gelatine Oval)	Morgan Crucible Co., The QUININE SALTS Howards and Sons Zimmermann	Bowling and Govier Gravie, J. and W. Hodder, S. Lemaire, W., and Co. Tomlinson and Sons Treble, G., and Son	Crutchley (Gloss) Harrop's Glaze	Association for the supply Orridge and Co.
PHARMACEUTI- CAL PREPS	RESPIRATORS Bourne, Johnson & Lister Evans, Sons and Co. May, Son and Thompson RUBBER GOODS Hutchinson, A., and Co.	Brecknell, Turner and Sons (Skin and Saddle) Chiswick Soap Co. Muniburg's Genuine Brown Windsor Mouson and Co. (Cocoa Butter)	STOPPERS Austin and Co. (Sprinklers) Brooks, Peel (Sprinklers) Vallet	VALUERS Orridge and Co.
Allen and Hanburys Baise Bros. Barron, Squire and Co. Battle and Co. (Bromidina) Burgoynes, Burbridges and Co. Burroughs, Wellcome and Co. (Fairchild's) Preparations Christy, T., and Co. Clay, Dod and Co. Duncan, Blackett Elliot (Hydrocephites) Fletcher, Fletcher & Stevenson Gibson, R. (Lozenges) Hearon, Squire and Francis Hirst, Brooke and Hirst Howards and Sons Kay Bros. Keith (Cone, Tinctures) Martindale (Nitroglycerine) Stearns (Non-secret) Wink, J. A., and Co. Woolley, Sons Wright, Layman and Umney Wyleys (Various)	SALICINE Macfarlan and Co. SALINES Allen and Hanburys Evans, Lescher and Webb Evans, Sons and Co.	Darton, F., and Co. Perken, Son and Rayment Scott, J. A., and Co.	STOVES Clarke, S. & Co. (Gas Heating)	VERMIN KILLERS Battle, J. R. Steiner and Co.
PLASTERS	SALOL. Kuhn, B.	SPECTACLES Darton, F., and Co. Perken, Son and Rayment Scott, J. A., and Co.	SUGAR Gibson, R.	VETERINARY
Evans, Sons and Co. Gibbs, Cuxon and Co. Mather, W. St. Dalmas, A. De Seabury and Johnson Taylor, E. The Pelic White Proprietary Co.	SALT Hassall, Thos. (Bay) Southall Bros. (Sea Salt)	SPIRIT, PURE AND METHYLATED Burrough (Pure & Methyl.) Gibbs, Smith and Co. Jones and Mason (Methyl.) Macnair, A. (Pure) Phillips, G., and Co. (Pure)	SYRUPS Stevenson and Howell (American Foam)	Chesebrough (Vaseline, &c.) Corner, R. (Devonshire Oils) Day, Son and Hewitt Day and Sons Garbett, R. (Fumigators) James, R. J. (Blister) Spratts (Dogs)
PORCELAIN GDS	SANTONINE Bieber, J. D.	SPONGE Creswell, R., and Co. Creswell Bros. Lynch and Co. Peterson, M. Schutze and Co. Bags)	TEA Pearse and Wheatley Spinner and Co. The Gt. Tower St. Tea Co. Walker and Dairymple	VINEGAR Grimble and Co. (Pure) Rothermel (Making)
Bentley (Opal Glass) Poths, H., and Co. Toogood (Cc. Pots, regis)	SAUCES Goodall (Yorkshire Relish) Lazenby (Harvey's) Tyre	SURGICAL Ayton and Saunders Bailey, W. H., and Son Colwell, H. M., & Co. Gerrard's Uroometer Gibbs, Cuxon and Co. (Dressings) Haywood, J. S. Holman Liver Pad Co. Hooper and Co. (Water Beds) Liverpool Lint Co. (Lim.) Lynch and Co. Marks, A. A. (Artificial Limbs) May, Son and Thompson Patterson and Barnes (Elastic Gum Instruments) Schutze, F., and Co. Scott, W. A. (Instrnts, etc.) Seabury and Johnson (Tissues) Stephenson and Travis Thompson, Millard	TEREBENE Hearon, Squire and Francis Hooper, B., and Co. Howards and Sons	WAXED PAPER Wall, G. C.
PRINTING	SEIDLITZ PWDRS. Chubb, J., and Co. Stedman	TOBACCO Corry, Soper, and Fowler Follows and Bate (Cutter)	THERMOMETERS Darton, F., and Co. Immissch's (Patent Metallic) Perken, Son and Rayment	WHLESLE & EXPT DRGGSTS
Blake and Mc Kenzie Brock Bros. Ford, Shand and Co. Kay Bros. (Almanacks) Townsend, J.	SELTZOGENES Gerout and Co. Guérat Frères May, Roberts	TINCTURE PRESS Burroughs, Wellcome and Co Follows and Bate	TINCTION PRESS Burroughs, Wellcome and Co Follows and Bate	Allen and Hanburys Baise Brothers and Co. Barron, Squire and Co. Bieber, J. D. (Hamburg) Burgess, Willows Burgoynes, Burbridges and Co. Bush, W., Son and Co. Clay, Dod and Co. Evans, Sons and Co. Evans, Sons and Mason Hearon, Squire and Francis Potter and Clarke (Arch., &c.) Scotland Bros. and Barclay Stevenson and Howell Summer, R., and Co. Thompson, Henry Ayscough and Son
PODRHYLLIN, &c.	SHAVING Hovenden (Euxesis) Lloyd, A. S. (Euxesis)	TRADE MARKS AGENTS Horn and Son	TOBACCO Corry, Soper, and Fowler Follows and Bate (Cutter)	WINES AND SPTS. Ambrech, Nelson and Co. (Coca Wine)
Keith, B., and Co. Smith, T. and H.	SHEEP DIP Biggs, T. Elvins Bros. (Fluid) Grindley	TRUSSES Ayton and Saunders Bailey, W. H., and Son Colwell Haywood, J. H. Lynch and Co.	URETHANE Howards and Sons	Brown, J. S. Coleman and Co. (Wine) Edgell Bros. (Rectified) Ingram and Royle Macnair, A., and Co. Metcalfe, Theo. ("Coca Wine") Robinson, B. (Orange) Younger and Ridley ("T perance")

ELEGANT COUNTER PILL VASES, PRICES MATERIALLY REDUCED. SEE NEWBERY'S 1886 CATALOGUE.



Photographic Wood Cut of an assorted "Stand" of Counter Vases of Pharmacopœia Pills or Granules (W. R. Warner & Co.), "Globe Stoppered" or Square Shouldered. These Vases are fitted with hand-painted, gold-bordered Labels, of which those named are usually in Stock. Height of Vase to top of Stopper, about 11 inches. DESIGN REGISTERED.

St. Columb, Cornwall,

Jan. 10th, 1885.

Messrs. F. NEWBERY & SONS,

GENTLEMEN,—I was much pleased with the Vases and Pills you sent me, and wish to remit. Will you kindly send me, etc.

Yours truly,
(Signed) E. GRIFFITH, Chemist.

E. BENTLEY & SONS,

MANUFACTURERS OF

**MEDICAL GLASS, DRUGGISTS' SUNDRIES,
AND
MEDICINE CHESTS.**

Also Inventors of the New Opal Glass Pots for Dispensing, &c.

ILLUSTRATED CATALOGUE ON APPLICATION.

14 Tabernacle Street, and 1 & 2 Hill Street, Finsbury,
LONDON, E.C.

BY ROYAL LETTERS PATENT.

HASSALL & CO.'S PHOSPHO-CITRIC ACID*To supersede Citric & Tartaric for Aerated Waters. It is recommended by the most eminent Physicians in Great Britain.***THE BEST HOUSES IN THE TRADE HAVE ALREADY ADOPTED IT.**

It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £8 per cwt. cheaper than Citric Acid, which mostly contains lead.

WE COMPETE ON QUALITY AND PRICE.

Testimonial from Mr. A. J. MASON, Chemist, of Boxley Heath.

"Having gone carefully into the matter I have no hesitation in saying that the patentees have in no way overstated the merits of their acid. There is no doubt in my mind that Phospho-citric Acid produces a much higher class beverage—giving, as they say, 'greater body'—the one thing needed in this class of goods; also a fruity character and mellowness I have never been able to secure with the ordinary acids. The aroma is also more pronounced. 'Purity' was my great incentive in giving the acid a trial, but I found 50s. or 60s. (citric at 1s. 7d. per lb.) per cwt., an economy not often secured under such favourable circumstances."

Why pay 2/6 per lb. for Citric, when a purer and more efficient Acid can be bought at about $\frac{1}{3}$ the price?**Beware of Imitations.**

Write for Pamphlet and Testimonials. 3-oz. Sample will be sent on receipt of Postage (3 Stamps), or 14 lbs. on approbation.

HASSALL & CO., Great Northern Goods Depot, King's Cross, LONDON.
Reuter's Cables and Inland Telegrams—"REMPUJARON LONDON."
NEW YORK—F. J. MACNAUGHTON, 20 CEDAR STREET.**W. MEADOWCROFT,**

MANUFACTURER OF HIGHLY CONCENTRATED

SOL. ESS. OF JAMAICA GINGER,

GINGER ALE, LEMON, ORANGE, &c.,

And all other requisites for the manufacture of high-class Aerated Waters.

WRITE FOR PRICE LIST.

OLD BANK STREET, BLACKBURN, LANCASHIRE.

INC. MINORIES, LONDON E.C.
New York
Sydney
Buenos Ayres
MELBOURNE
SYDNEY
MELBOURNE
SODA WATER MACHINERY
AND ALL ACCESSORIES
FOR THE TRADE
BRATBY & HINCHLIFFE
HEAD OFFICE
SANDFORDS, ANCOATS, MANCHESTER.

BOXES BOTTLES MACHINERY
ESSENCES
Catalogues, Circulars, Testimonials
Post Free

THE "LONDON-MADE" SYPHON BOTTLE

(TITLE REGISTERED.)

Obtained the HIGHEST AWARD at the International Health Exhibition, London, 1884.



The high reputation this bottle has achieved is due to the fact of its being in every particular the most perfect yet introduced; and when compared with others in the market it stands pre-eminent. It is most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the handle being sufficient; it produces a mere slightly-charged gaseous water than is usually obtained from syphons; it compares most favorably in appearance with any, and, the metal top being entirely free from lead, the prejudice against syphon drinks is at once removed, as the liquid passes over pure tin only.

All our Syphons are now fitted at the base with a groove, so that drops from the spout that run down the sides are prevented from soiling the table. See drawing.

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private-house use. Send for sample; forwarded upon receipt of 2s.

Any name, crest, or trade-mark put on the glass by an improved acid process, at from 1s. to 2s. per gross. There is a three-fold advantage in this, as it forms a continual advertisement, is a great ornament, and a preventive of fraud. The plate for engraving costs extra from 5s. upwards, according to the artistic device required.

PRICES (WHITE, BLUE, GREEN, OR AMBER):—

	By the gross,	Less than 1 gross,
Quart size	£1 2 0	per doz.
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour (including Azure Blue)...	1 4 0	1 6 0
Tops, nickel-plated, from 5s. 6d. per doz. extra. Tops, silver-plated and burnished from 9s. per doz. extra. A charge is made for packing, except when ordered in our patent bin cases (holding one dozen each, price 2s. 6d. each).		

Please Note.—B. & F. are the only firm manufacturing Syphons in England that do not supply them filled, and so compete with their customers' trade.

BARNETT & FOSTER,

MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aerated Water

Wine, Beer, and Cyder Trades,

"Niagara Works," 26th Eagle Wharf Road, London, N.

Send for Price List of Soda-water Machinery and Accessories.

12½ gals. for £1, Cask free.

SPECIAL LINES FOR CASH BUYERS

TYRER'S WORCESTER SAUCE, YORKSHIRE SAUCE, "BOROUGH" KETCHUP.

BEST VALUE THAT MONEY CAN PURCHASE.

Prices and Samples sent free of all cost by
PETER TYRER, The "Borough" Ketchup & Sauce Maker,
LONDON, S.E.

T. & F. J. TAYLOR'S AÉRATED WATERS, Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SALTZER, AÉRATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

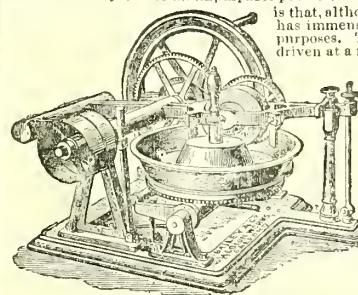
Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD Ph.D. F.G.S.

BAILEY'S MINTON-WARE BOWL DRUG MILL. (CARR'S PATENT.) FOR HAND OR POWER.

Will reduce Crystals to an impalpable powder. The chief feature of this machine is that, although it can be turned with ease, it has immense frictional power for levigating purposes. This is caused by the rumer being driven at a much greater speed than the bowl.

Diameter of Bowl, 18 inches.
Price, £11.
Lists, &c., on application.



Mr. J. DUTTON, Rock Ferry, Birkenhead, says—"The Mill you sent me answers admirably for powdering all kinds of Salts, and for many other things, such as Opium, Scammony, Soap, Almonds, Mace, &c. It also effects a great saving of time and labour in mixing various Powders, such as Tooth Powder, Lemon and Kali, &c., and proves a very useful apparatus in the shops."

W. H. BAILEY & CO., ALBION WORKS, Salford, MANCHESTER.

RANDALL'S BLACK CURRANT LOZENGES.

	s.	d.
Plain Black Currant, old square	-	2 6
" " rough oval	-	2 6
Black Currant and Ipecacuanha	-	2 6
Black Currant and Tannin..	..	3 0
Black Currant Voice (warm astringent)	..	3 0
Black Currant Cough Lozenges	3 6

(* Ipecac. and Morph., strength as "B. P.")
In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London: through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.
Also BROWN COUGH LOZENGES, 2s.; 7 lbs. stamped with name free, and MUSK LOZENGES (Special), 2s. 6d.

N.B.—Medical Lozenges of every kind,
Including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.

OCT. 16, 1836.



DR. KOCH'S MEAT PEPTONE

DIPLOME D'HONNEUR ANTWERP EXHIBITION, 1885.

The most Assimilable and Nutritious Extract of Meat yet offered to the public.
Materially Cheaper and Superior to all similar Preparations,

Containing *all* the nutritious constituents, *including* the Albumen, of Fresh Meat Peptonised, i.e., so prepared that it is instantly assimilated without requiring the process of digestion. Invaluable to Invalids and persons of weak or impaired digestion, and in all cases of Dyspepsia, Poorness of Blood, Debility, &c.

Extract of Meat form : in pots of 3½ oz.	(retail, 2/-) ..	1 6 each	In Dry Form : Tablets in envelopes of about 7 oz. (retail, 4/-) ... 3/- each
" " "	8 oz.	4/-) ..	" Lozenges in boxes [the most sustaining nourishment in the smallest possible compass] .. 1/- ... -/9 ..
" " "	In this of 35 oz.	14 6 ..	11 6 ..

Sole Wholesale Depot for Great Britain—BURGOYNE, BURBIDGES & CO., 16 Coleman Street, London, E.C.

Who will be glad to forward Samples, Pamphlets, &c., upon application.

EIGHT INJUNCTIONS have been granted during the past few months.

CAUTION! "YORKSHIRE RELISH."

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to the use of which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

Solicitor to the Trade Mark Protection Society.

TOWER TEA

A SAFE and PROFITABLE addition to a Chemist's Business.



For retail at

The London Broken Tea ... 1/8

The London Two Shilling Tea... 2/-

The London 2/8 Assam Tea... 2/8

For Testimonials and References see the full page Advertisement which appears monthly in this Journal. Last insertion September 25, page viii.

THE GREAT TOWER STREET TEA CO., LIMITED.
LONDON.

LEECHES!



Warranted Healthy, Wholesale e
and for Exportation. Direct
from Marshes.

HAMBRO SPECKLED.

TRADE MARK

REGISTERED.

All Orders by Post receive immediate attention.

FITCH & NOTTINGHAM,

LEECH BREEDERS,

4 CANONBURY SQUARE, LONDON, N.

FOUND DEAD

BY SANFORD'S RAT POISON.

"I have found 145 rats killed in my farm buildings by it."—C. Wilson, Offord. It is the most certain remedy I have ever tried. Little pellets about the size of a pea are put in the rat holes or in their runs. I destroyed over 200 rats from one dressing with it."—C. Cook, Grange Farm, Ellesmere Salop. It is without doubt the best remedy for rats. Price 6s. 1s., 2s., 3s., 6s. Chemists.

SANFORD'S MICE POISON for mouse Buildings, Corn Stacks, &c. Cannot be excelled. Has given entire satisfaction for the past 28 years. In packets 3d., 6d., 1s., and 2s. each, with directions for use of SANFORD & SON, Sandy, Beds. Liberal terms to Chemists. Wholesale of Barclay & Son, Sanger & Son, Newbery & Sons, Edwards, and others, London (England).

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THE GOLDEN FLEECE.

THE "LONDON" TOBACCO JUICE.

BY SPECIAL PERMISSION OF HER MAJESTY'S CUSTOMS FREE OF DUTY.

No. 1 contains 42 ozs. to the Gallon.

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We confidently recommend No. 1 as being the Best and Cheapest Article in the Market. Also

TOBACCO POWDER (DUTY FREE).

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CORRY, SOPER, FOWLER & COMPANY (LIM.),

18 FINSBURY STREET, E.C., AND SHAD THAMES, LONDON, S.E.

Coleman's Liebig's Extract of MEAT & MALT WINE

Hundreds have been tested and found to be Medical Men.

Is a Delicious Beverage and Tonic made from Port Wine, Liebig's Extract of Meat and Extract of Malt.

**NUTRITIOUS, STRENGTHENING,
STIMULATING,**

Flesh-forming, and Health-restoring.

**SUITABLE FOR THE ROBUST IN HEALTH
AS WELL AS THE INVALID.**

**Important Unsolicited Testimonial from
M. K. HARGREAVES, Esq., M.D.**

Wellington House, Bruce Street, Leeds.

January 12, 1885.

Messrs. COLEMAN & Co.
Gentlemen.—I received sample bottle of your "Extract of Beef and Malt Wine." I find that it is the same as I used extensively over two years ago, and which I found of so much benefit that I have used it ever since in my practice, and numbers of my patients get it for themselves. I have great confidence in it as a tonic and restorative. It is also very useful in cases of consumption.

I wish you would send me one dozen bottles, and then will send you money by return. You can send it by rail by G.E.R. on to the G.N.R., and then it will come direct to Leeds.

I am, yours truly,

M. K. HARGREAVES, M.D.

Sold by all Druggists, Wine Merchants, and Patent Medicine Vendors in the United Kingdom, in Bottles, 2s. 9d. and 4s. 6d. each.

Ask for COLEMAN'S LIEBIG'S EXTRACT OF MEAT AND MALT WINE, and "see that you get it."

2/9 size, 30s. per doz. 4/6 size, 50s. per doz.

Carriage paid to any Railway Station in Great Britain.

Sample Pint Bottle sent free by Post on receipt of 33 stamps.

The following Preparations have also been introduced by the Manufacturers:—

Coleman's Liebig's Extract of Meat and Malt Wine (WITH IRON), in Bottles, 2/9 and 4/6 each.

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TRADE PRICES ON APPLICATION.

EIGHT PRIZE MEDALS AWARDED.

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HOUSEHOLD SPECIALITIES.**

Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & Co. No other is genuine.

**Goodall's
Baking Powder**

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

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Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 6d., 1s., and 2s. each.

**Goodall's
Custard Powder**

For making delicious Custards without Eggs, in less time and at half the price. Unparalleled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in boxes 2s., 6d., and 1s. each.

**Goodall's
Blanc Manger Powder**

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-manger may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's
Egg Powder**

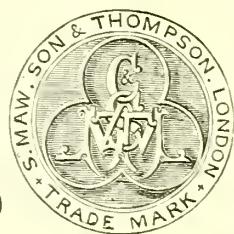
Acknowledged to be the only real substitute for eggs yet discovered. Its action on Oakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One sixpenny tin will go as far as twenty eggs. In 1d. Packets; 6d. and 1s. Tins.

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BURROUGHS, WELLCOME & CO.'S PAGE.

GRANULAR EFFERVESCENT
HYDROBROMATE OF CAFFEINE
(BISHOP'S).

CAFFEINE is found in *Camellia thea*, in the dried seeds of Caffea Arabica and in Guarana and other plants. It is also known as "Paulinia Powder." Caffeine exists in the coffee berry, in combination with a peculiar acid called caffeine, to which are partly attributed the pleasant odour and flavour of roasted coffee. It contains more nitrogen than almost any other alkaloid.

Hydrobromate of Caffeine is a cerebral stimulant, and antagonistic to the poisonous effects of opium. It has the power to increase muscular work—indeed its restorative effect on muscle is marvellous. Primarily, it stimulates the heart's action, and raises arterial tension. "In small doses it promotes the appetite, increases the digestive power by stimulation of the gastric glands, relaxes the bowels slightly," and greatly lessens tissue waste.

It is a grand stomachic tonic, and in chronic catarrh of the stomach, with hemicrania sometimes, will be found very useful. To promote constructive tissue change it is very effective in convalescence from acute disease. It is one of the most popular and efficient remedies for pain in the head, and for all the forms of nervous headache, whether accompanied by stomach derangements or not. When the headache seems to be inside the head, without external tenderness, Caffeine works equally well. When the vital forces are below par, it is a quick restorative, and especially when there is an abnormal excretion of urea, as occurs early in consumption with indigestion. It dispels hypochondriasis and simple melancholy, and dissipates the drowsiness of a hearty meal and oftentimes the stupor of uræmia.

Caffeine exerts such a remarkable influence on the heart and circulation that it is often used instead of foxglove. In cardiac, hepatic, and renal dropsy it is frequently the safest and best medicine that can be taken. It "causes free diuresis in twenty-four hours," but not when the renal epithelium is destroyed (Bartholow), and is known as a hydrogogue diuretic. Brunton says: "It acts as a diuretic when the kidneys are diseased, and is useful even in advanced cardiac cases. It is best given first alternately with foxglove." It tones and equalises the circulation, and its tonic cerebral effects seem due to its "action on the brain tissue itself." It stimulates the "accelerating centres." In opium poisoning it should always be given as an adjunct to other treatment.

On account of idiosyncasy it is occasionally necessary to administer a little brandy with ordinary caffeine, but in the case of the Hydrobromate Salt this will seldom or never be required. *It seems to agree with all.*

On account of its remarkable strengthening properties, caffeine has been taken while performing great physical and mental work, as by soldiers and scholars; it is a delightful nutrient exhilarant in the fatigue induced by an excessive strain of any kind upon the system.

When the brain is poorly nourished, this agent, if properly given, may ultimately prove to be the remedy *par excellence*; but in cerebral congestion, hyperæmia, etc. (as when there is too much blood in the head), it is not indicated. By preparing the caffeine with hydrobromic acid, we have a salt, the action of which is immeasurably improved by the virtues of the bromine atoms. It is well known that hydrobromic acid eliminates the unpleasant effects of quinine. Potassium, if given as a *Bromide*, is one of the best remedies to allay nervous irritability, and relieve cerebral troubles. The Hydrobromate of Caffeine seems to work better than any other form of the drug.

Now of the value of caffeine in certain forms of headache, especially when found along with cerebral exhaustion, most practitioners are convinced, just as much as they are of the utility of caffeine in cardiac debility. It is by its combined action upon the heart and the brain that coffee is effective in opium poisoning. Of old, coffee was in vogue with students to ward off sleep, and has been called "the intellectual beverage." In cases of cere-

bral exhaustion, coffee, or rather caffeine, has been found very valuable. But in certain instances resort to caffeine has been found to aggravate rather than relieve the pain.

In his treatise on "Functional Nervous Disorders," Dr. HANDFIELD JONES, F.R.S., in discussing "Headaches," remarks:—"In the management of stimulants and tonics the chief point to be attended to is *Testinare lente*. A very weak and sensitive brain may be quite unable to tolerate a dose at first, which at a later period will cause no inconvenience." To prevent such ill effects he advocates the addition of *bromides* to the stimulants and tonics.

At another place he writes:—"Nothing is more common than to find anaemic patients complaining of headache from the administration of the necessary tonics, because their nerve centres have been brought into such a state of hyperæsthesia by their impaired nutrition that they can hardly tolerate anything of a stimulating nature. A little excess, therefore, even of sanguineous blood may cause distress to a feeble brain, which, after it has acquired a more healthy tone, will bear and be benefited by a larger amount of much better blood. The case is similar to that of the starved man, whose very preservation depends upon his being fed most sparingly for some time."

In his practitioners' "Handbook of Treatment," Dr. MILNER FOTHERGILL makes the following comment upon this quotation:—"In such cases, and they are frequently met with, the administration of tonics and steel may be combined with bromide of potassium, and even *better still hydrobromic acid with advantage*. Such combination but very rarely disagrees; even where *nervine* tonics alone, or not so combined, are utterly intolerable."

To those persons afflicted with distressing headaches Hydrobromate of Caffeine is invaluable. It imparts to the senses a feeling of renewed energy and buoyancy, unobtainable by other means within a similar space of time; and is not liable to give rise to the objectionable symptoms consequent upon the administration of ordinary cerebral stimulants.

It also affords relief from depression of spirits, dejection, and restlessness when these symptoms proceed from nervous irritation or debility.

Physicians will find it particularly adapted to ladies suffering from those peculiar nervous conditions of the system to which they are so frequently subject.

No pains have been spared to render the Hydrobromate of Caffeine pure, perfect, and reliable, and it is confidently offered as a most important pharmaceutical improvement.

The advantages of this preparation over many combinations of guarana, coca, etc., are that while possessing similar therapeutic properties, the absolute strength can always be relied upon, and it is free from all disagreeable effects. But little dependence can be placed upon those drugs, too often imported and found differing widely in strength, being oftentimes worthless, on account of careless gathering or faulty manipulation.

The dose of Bishop's Granular Effervescent Hydrobromate of Caffeine is a teaspoonful, dissolved in a tumbler half full of cool water, to be taken during effervescence; if necessary, this quantity may be repeated every 40 minutes, for two or three hours, until the desired effect is produced.

The British Medical Journal says:—"Mr. Alfred Bishop, whose effervescent granular preparations are so well known, has just issued for medicinal use a granular effervescent hydrobromate of caffeine. This salt is now largely employed, and on the Continent is usually preferred to the citrate. It is a powerful diuretic, and is frequently administered with success in cases of dropsy, either alone or in combination with digitalis. It is one of the best remedies for many kinds of migraine, headache, and neuralgia. It is supposed to have the power of lessening tissue change and waste, and is recommended for the mental depression caused by over-work and other causes."

THE TRADE SUPPLIED BY

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

WE ARE NOW ADVERTISING EXTENSIVELY

PETROLEUM "WHITE VASELINE" JELLY.

In Collapsible Tubes, 8d. ...	5/- per dozen.	Ditto, Perfumed, 9d. ...	6/- per dozen.
„ 2-oz. Bottles, 1/- ...	8/- "	" "	8/- "
„ 5-oz. „ 2/- ...	15/- "	" "	16/- "

The Bottles are put up in Cardboard Cases, the same as "Vaseline" No. 1 and No. 2 sizes.

Also "VASELINE OIL" (Perfumed) for the Hair, 1s. bots., 8s. per doz.

CHESEBROUGH MANUFACTURING CO., 41 Holborn Viaduct, LONDON, E.C.,
Proprietors and Sole Manufacturers of the "VASELINE" Preparations.**LANOLINE (LIEBREICH).**
THE NEWLY-DISCOVERED BASIS FOR OINTMENTS.

LANOLINE is the fat natural to the skin and is absorbed by this structure at once.

It is absolutely neutral (as distinguished from all imitations, which contain free fatty acids), and never turns rancid, thus differing from ordinary fats.

LANOLINE is of desirable consistence, does not melt below body heat, is homogeneous and free from hard or crystalline bodies. It will take up over 110 parts of water, and is miscible with all medicaments indifferently.

So penetrating is LANOLINE that but half the usual quantity of any drug ordinarily employed in making ointments should be used.

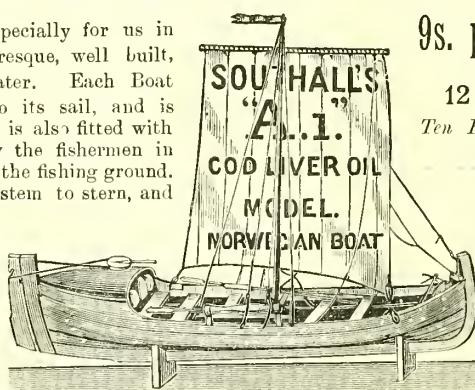
Through the instrumentality of this agent, Narcotics, Quinine, Iodide of Potassium, Mercury, and all the medicinal agents prescribed in skin diseases, have been satisfactorily introduced into the system. It never irritates, and is always grateful.

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Samples supplied free upon request to the Trade and Profession.

THESE MODELS, made specially for us in Norway, are very picturesque, well built, and behave admirably in water. Each Boat possesses oars, in addition to its sail, and is complete in every respect. It is also fitted with a cabin on deck, as used by the fishermen in travelling from their homes to the fishing ground. They measure 28 inches from stem to stern, and 32 inches to top of mast.

They can only be supplied to purchasers of the "A1" Oil, as they are intended for the interior of shops or windows, as an attraction and advertisement. The price fixed, therefore, is very moderate, viz., 10/- each.

9s. per Gallon, in Winchester Quarts,
OR BY

12 Winchesters, 8/6 per Gallon.

Ten Blue Trade Mark Labels supplied with each
Winchester Quart.Counter Bills supplied with Coloured
Illustration of Factory.The "En Norsk Fisker" Labels,
in Colours, 2s. per 100.

THE "A1" OIL REMAINS BRIGHT BELOW 32° FAHR.

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MORPHIÆ HYDROCHLOR.

In powder and crystals.

MORPHIÆ ACETAS**MORPHIÆ TARTRAS**Introduced by us and specially prepared
for hypodermic treatment.**CODEIA APOMORPHIÆ MUR.****ALOIN RESINA SCAMMONII****JALAPINE****SALICINE****CHLOROFORM PURE****CHLOROFORM METH.**Our brand has been for many years known to
the Wholesale Trade as absolutely pure**GINGERINE****CAPSICINE****CAMPHOR MONOBROM.**

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ESTABLISHED 1859.

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CORRESPONDENTS will please note that our registered telegraphic address is changed from "Chemdrug, London," to "Chemus, London," the Post-office authorities having informed us that they found the former word inconvenient.

THE CHEMIST AND DRUGGIST'S DIARY FOR 1887 is being rapidly prepared. This is the finest publication in the world for advertisements to chemists and druggists, as it is used daily all the year through in many thousands of pharmacies in the United Kingdom and abroad.

POST-CARD COMPETITION, No. 7.—We remind our readers that the subject of the competition which will close on October 22 is *Corrections of the B.P.*, 1885. The most complete list sent in will get the usual prize. This competition gives assistants and others an excellent opportunity of becoming thoroughly acquainted with the Pharmacopoeia, and we expect that the result of the competition will be generally valuable.

WE PUBLISH special reports of the opening meetings of the Midland, the Newcastle-on-Tyne, and the Sheffield Pharmaceutical Associations; also of the Pharmaceutical Society of Ireland (with a portrait of the new president), and of the first meeting of the London Assistants' Association.

DIARY FOR NEXT WEEK.

Wednesday, October 20.

Chemists' Assistants' Association at 8.30. Discussion on Pharmaceutical Education and Examination.

Friday, October 22.

Sale by auction of chemist's stock and fixtures at Southport, by Thomas Whitehead & Son. (See adv.)

LAST MONTH'S TRADE STATISTICS.

THE Board of Trade Returns for September show the following figures:—

Imports.

	September, 1885	September, 1886
Total value	£29,863,783	.. £28,898,505

Exports.

	September, 1885	September, 1886
Total value	£18,621,664	.. £18,928,975
Foreign and colonial produce (partly estimated)	5,036,052	.. 4,496,979

Below are the details affecting drugs and chemicals:—

Imports.

	Sept., 1884	Sept., 1885	Sept., 1886
Chemical manufactures and products (unenumerated)	value £ 113,820	91,810	93,214
Alkali .. ..	.. cwt. 8,372	6,910	5,440
Brimstone .. ..	.. value £ 6,805	5,375	4,088
" .. ..	.. cwt. 47,417	90,200	52,307
Nitre" (nitrate of soda) .. ..	.. value £ 11,273	21,596	13,413
" .. ..	.. cwt. 38,6 3	110,370	23,300
" (nitrate of potash) .. ..	.. value £ 19,508	60,280	11,655
" .. ..	.. cwt. 35,134	47,413	21,175
Quicksilver" .. ..	.. value £ 31,988	39,883	18,315
" .. ..	.. lbs. 37,500	22,500	63,750
" .. ..	.. value £ 2,727	1,750	5,130
Drugs, unenumerated .. ..	.. value £ 51,008	72,934	60,655
Bark, Cinchona .. ..	.. cwt. 9,818	7,180	11,044
Pharmaey in Australia: Special Correspondence value £ 73,351	43,217	25,537
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Dyes and tanning materials:-			
Bark (for tanners' or dyers' use) .. cwt.	31,289	50,907	23,300
"	value £ 12,082	22,018	7,824
Anilne dyes .. ..	.. value £ 18,860	16,241	21,973
Alizarine .. ..	.. value £ 27,194	31,570	19,748
Other coal-tar dyes .. ..	.. value £ 264	109	210
Cochineal .. ..	.. cwt. 1,049	722	946
" .. ..	.. value £ 5,618	4,329	6,210
Cutch and gambier .. ..	.. tons 3,29	2,590	3,015
" .. ..	.. value £ 66,195	53,483	75,361
Indigo .. ..	.. cwt. 2,618	833	1,200
" .. ..	.. value £ 42,810	11,825	20,620
Madder, madder root, garancine, and munjeet .. ..	.. cwt. 2,544	1,262	2,818
" .. ..	.. value £ 3,386	1,595	3,120
Valonia .. ..	.. tons 2,355	1,989	1,489
" .. ..	.. value £ 33,09	32,636	21,079
Oils:-			
Cocoa-nut .. ..	.. cwt. 24,350	33,464	6,933
" .. ..	.. value £ 39,405	51,261	9,184
Olive .. ..	.. tons 680	674	1,308
" .. ..	.. value £ 27,657	26,786	50,387
Palm .. ..	.. cwt. 74,678	73,552	98,533
" .. ..	.. value £ 122,224	95,618	101,637
Petroleum .. ..	.. gals. 6,648,632	9,672,123	3,965,723
Seed, of all kinds .. ..	.. tons 205,004	292,177	131,560
Train, blubber, and sperm .. ..	.. tons 1,566	1,237	1,262
" .. ..	.. value £ 46,073	34,841	33,215
Turpentine .. ..	.. tons 2,595	3,225	2,025
" .. ..	.. value £ 65,030	92,002	50,699
" .. ..	.. cwt. 51,504	64,847	13,563
" .. ..	.. value £ 62,558	84,917	19,078

Exports.

	Sept., 1884	Sept., 1885	Sept., 1886
British and Irish produce:-			
Alkali .. ..	.. cwt. 734,316	614,330	479,080
" .. ..	.. value £ 232,889	172,633	140,108
Bleaching materials .. ..	.. cwt. 144,647	132,311	126,859
" .. ..	.. value £ 58,957	41,504	40,707
Drugs and medicinal preparations			
" .. ..	.. gals. 77,820	64,928	68,299
Oil (seed) .. ..	.. gals. 1,120,600	1,495,20	1,119,800
" .. ..	.. value £ 98,326	138,776	99,362
Soap .. ..	.. cwt. 35,776	41,204	35,143
" .. ..	.. value £ 40,475	46,587	36,276
Painters' colours and materials (unenumerated) .. ..	.. value £ 110,565	104,055	111,282

Exports—continued.

		Sept., 1884	Sept., 1885	Sept., 1883
Foreign and Colonial merchandise—				
Bark, Cinchona	cwt.	9,196	9,007	8,611
"	value £	51,971	51,299	39,729
Chemicals (unenumerated)	cwt.	12,260	12,954	9,471
Cochineal	cwt.	1,553	657	1,424
"	value £	8,733	4,510	9,291
Cutch and gambier	tons	846	549	1,237
"	value £	21,473	14,418	33,093
Gum "Arabic"	cwt.	1,879	7,924	3,064
"	value £	6,778	28,254	11,273
Indigo "	cwt.	3,236	3,066	2,792
"	value £	76,946	60,202	55,304
Lac, various kinds	cwt.	5,031	3,884	7,755
"	value £	18,384	12,101	23,101
Oils, cocoa-nut	cwt.	19,068	8,968	12,507
" olive"	tons	153	216	209
" palm"	value £	7,651	10,193	8,928
"	cwt.	25,418	27,548	65,342
"	value £	41,373	36,386	67,626
" pétroleum"	gals.	61,420	27,792	24,780
Quicksilver	lbs.	230,068	723,252	603,937
Nitre (nitrate of potash)	cwt.	2,000	2,255	586
"	value £	1,846	1,844	591
Spices, cinnamon	lbs.	164,370	131,961	114,404
" pepper"	value £	8,879	5,035	5,121
"	lbs.	2,737,963	2,727,726	2,739,145
"	value £	85,353	86,055	82,967

THE PRELIMINARY EXAMINATION.

THE following were the questions given at the Preliminary Examination on October 12:—

LATIN.

(Time allowed—from 11 A.M. to 12 30 P.M.)

1. Translate into English either A. (Cæsar) or B. (Virgil).

(Candidates must not attempt both).

A. CÆSAR.

1. Dum ea conquiruntur et conferuntur, nocte intermissa, circiter hominum milia vi. ejus pagi, qui Verbigenus appellatur, sive timore perterriti, ne armis traditis supplicio afficerentur, sive spe salutis inducti, quod, in tanta multitudine declititorum, suam fugam aut occultari, aut omnino ignorari posse existimarent, prima nocte ex castris Helvetiorum egressi, ad Rhenum finesque Germanorum contulerunt.

2. Ex concilio dimisso, iidem principes civitatum, qui ante furant ad Cæsarem, reverterunt, petieruntque, uti sibi secreto de sua omniumque salute cum eo agere licet. Ea re impetrata, sese omnes flentes Cæsari ad pedes projecterunt; non minus se id contendere et laborare, ne ea que dixissent enuntiarentur, quam uti ea que relleant impetrarent; propterea quod, si enuntiatio esset, summum in cruciatum se venturos viderent. *Locutus est pro his Divitiacus Aduus; Galliae totius factiones esse duas: harum alterius principatum tenere Aduos, alterius Arvernos.*

II. Grammatical Questions.

(For those Candidates who take Caesar.)

1. Decline in full (singular) *prima nocte* (Par. 1).
 2. Write in full the indicative perfect and subjunctive present of the verbs *conquiruntur*, *afficeruntur*, *posse* (Par. 1).
 3. Give the principal parts of the verbs in italics (Par. 2).
 4. Account for the cases of *sibi*, *salute*, *Cæsari*, and for the mood of *contendere* (Par. 2).

B. VIRGIL.

1. O socii; neque enim ignari sumus ante malorum;
 O passi graviora; *dabit* Deus his quoque finem.
 Vos et Scyllaeam rabiem, penitusque sonantes
 Accestis scopulos: vos et Cyclopia salsa
 Experti. Revocate animos, mestustum timorem
Mittite: forsitan haec olim *meminisse juvabit*.
 Per varios casus, per tot discrimina rerum,
Tendimus in Latium; sedes ubi fata quietas
Ostendunt; illic fas regna *resurgere Troje*.
 Durate, et vosmet rebus servate secundis.

2. Obstupuit simul ipse, simul percussus Achates
 Letitique metuque: avidi conjugere dextras
 Ardebat; sed res animos incognita turbat.
 Dissimulant; et nube cava speculantur amicti,
 Quæ fortuna viris; classem quo liture linquunt;
 Quid veniant: cunctis uam lecti navibus ibant,
 Orantes veniam, et templum clamore petebant.

II. Grammatical Questions.

(For those Candidates who take Virgil.)

1. Decline in full (singular and plural) *res incognita* (Par. 2).
 2. Write in full the indicative perfect and subjunctive present of the verbs *speculantur*, *ibant*, *petebant* (Par. 2).
 3. Give the principal parts of the verbs in italics (Par. 1).
 4. Account for the cases of *malorum*, *his*, *casus*, and for the mood of *meminisse* (Par. 1).

III. (For all Candidates). Translate into Latin:—

1. The camp was taken by the enemy.
 2. He said that he could not come.
 3. Useful things delight a wise man.
 4. I fear that I shall not be able to overcome the enemy.
 5. Having given this answer, he went away from the house.

ARITHMETIC.

(Time allowed—from 12.30 p.m. to 2 p.m.)

(N.B.—The working of the examples, as well as the answers, must be written out in full.)

1. Multiply the difference between 12 cwt. 3 qr. 17 lb. 10 oz. and 5 cwt. 2 qr. 23 lb. 11 oz. by 528.
 2. If a tradesman marks his goods 20 per cent. above the cash price, what ready money would he take for an article marked 26s.?
 3. A man paid away $\frac{1}{3}$ of a legacy, then $\frac{1}{4}$ of the remainder, and finally $\frac{1}{6}$ of his first payment. After these three payments, he had 90l. 6s. 2d. left. Find the value of the original legacy.
 4. Multiply 2.3 by 5.6; and divide 3.995418 by .00753.
 5. Write out the Metric Table of Capacity, and give approximately the equivalent of the *litre* in English cubic inches. How many bottles, each containing 30 centil., can be filled out of a cask containing 86 lit. 40 centil.?
 6. What will be the cost of painting the walls of a room, at 9½d. per square yard, if the length of each side is 19 ft. 10½ in., of each end 16 ft. 1½ in., and the height 10 ft. 3 in.?
 7. A. and B. enter into partnership; A. invests 550l. in the business, and, after two months, adds 250l.; B. invests 750l., and, after six months, takes away 250l.; at the end of the year the profits are 367l. 19s. 4d.: how should they be divided?

ENGLISH.

(Time allowed—from 3 P.M. to 4.30 P.M.)

1. How do you distinguish between *personal* and *relative* pronouns? Give in full the personal pronouns of the third person.

2. Analyse the following sentence:—
 "When the moon shone, we did not see the candle;
 So doth the greater glory dim the less."
 3. Parse the following sentence:—"Some men, like pictures, are fitter for a corner than a full light."
 4. In the following passage, supply the necessary capital letters, and put in the stops and inverted commas where necessary:—The two accomplices were then confronted young with unabashed forehead denied everything he knew nothing about the flower pots if so cried nottingham and sidney together why did you give such particular directions that the flower pots at bromley should be searched i never gave any directions about the flower pots said young then the whole board broke forth how dare you say so we all remember it still the knave stood up erect and exclaimed with an impudence which oates might have envied this hiding is all a trick got up between the bishop and blackhead.
 *5. Write a short Composition on one of the following subjects:—
 (i.) The present Condition of Ireland.
 (ii.) Earthquakes. (iii.) Our Colonies.
 (iv.) Music. (v.) Life Insurance.

* This must be attempted by every candidate.

Metropolitan Reports.

PROFESSOR BENTLEY'S BOTANICAL LECTURES—Some students may be interested in the following summary of the lecture in which Professor Bentley introduced his winter course on botany at the School of Pharmacy, Bloomsbury Square, on October 1. He said:—"Botany, I assure you, is not a mere study of hard names; it does not present any more difficulty than that encountered in any other science. I grant it is not easy to understand it thoroughly, but we must recollect the old proverb, 'The harder the nut, the sweeter the kernel.' Difficulties become pleasures when they are surmounted. Lectures are sometimes unpopular, since there is an impression that matters there treated could as easily have been learnt in books. This is an error, for it is the duty of an efficient lecturer, not so much to cram together details, as to illustrate principles, and that chiefly by demonstration. The lecture should be a living representation of what you read, and be thus photographed in your mind. To make the lectures of actual use there must be strict regularity of attendance, so that they should not be isolated discourses. Note-taking may be carried to an injudicious excess; write down leading facts and headings, but never let the practice interfere with attention to specimens described or to whatever illustrations the lecturer may introduce. Recollect always that you cannot get up a science from lectures taken alone; time is never sufficient to include every possible detail, and it would be wearisome so to do. Lectures must be supplemented by reading—not too many books, nor a tribe of little ones, but take some good work, and make that your own. In introducing this subject it is necessary to begin with a general sketch of the position of plants in nature, their various organs and classification. Objects in nature have been divided into three main classes:—(1) Animal; (2) Vegetable, both these having life, belonging to the organic world, and therefore included in what is called Biology; (3) Mineral, belonging to the inorganic world. Botany is the science of plants—that is, of all plants from the monarch of the forest to minutest microscopic forms. We have to treat of their distribution, classification, and description. Botany includes also the history of plants of past ages, and is therefore a science vast in extent.

"Morphological botany investigates external forms—what can be seen by the eye—and the relation of these forms one to the other. Structural botany describes the building materials of the plant, while vegetable histology treats of their internal structure. Both come under what is termed 'Organography.' Physiological botany, that most entrancing of all studies, relates to the life of a plant and the laws which regulate the whole series of wonderful actions with which it is endowed. These laws must be learnt from nature herself, and to attempt to understand them it is indispensable to have great knowledge of elementary facts and an intimate acquaintance with the science of chemistry.

"Systematic botany, which includes classification and description, must be left to the summer months when nature under the benign influence of heat and light bursts forth into new life.

"Geographical botany, relating chiefly to distribution, is much neglected by British botanists. We, as Englishmen, with our widely-spread colonies, might cultivate it with supreme advantage. It concerns the large question of the influence of soil and climate, as well as the knowledge of the countries whence certain drugs are derived.

"Fossil botany, relating to plants which belong to past ages, does not come within our present scope.

"What is a plant? This would seem easy to define. We may reply that animals have motion, plants have not: we may say animals are sentient beings, plants are not. Speaking thus generally there appears little difficulty to establish a distinction. But we descend lower in the series and we find minute structures or cells; these produce life and grow and reproduce. We descend into the lowest series of animals and find there almost the same thing, and thus we stand upon the confines of the two series. We reach a point when we are obliged to confess that a difficulty arises in establishing a true distinction, at least one that may be considered absolute. Haeckel calls this intermediate kingdom "Protista." You cannot give any one true definition of a plant. But while this is

true in the abstract, there are a number of general distinctive characters which taken together help to mark off the vegetable from the animal world, and on which a definition may be based."

AGRICULTURAL CHEMISTRY.—Mr. Frederick James Lloyd, Consulting Chemist to the British Dairy Farmers' Association, has commenced a series of lectures on "Agriculture in Theory and Practice," at King's College, Strand, on Friday evenings, from 6 to 7 P.M.; and Mr. Bernard Dyer, F.C.S., &c., is delivering a course of lectures on "Agricultural Chemistry" at the City of London College, Moorfields, on Tuesday evenings, at 7 P.M.

CHEMISTS' ASSISTANTS' ASSOCIATION.—The first meeting of the ninth session of this Association was held on Wednesday evening at 103 Great Russell Street, W.C. There was a good attendance of members, and several visitors were also present. The President, Mr. H. H. Millhouse, took the chair at nine o'clock, and called upon Mr. E. H. Farr (Honorary Secretary) to read the minutes, which were approved of. Twenty persons were then duly proposed for membership, that number including the names of several gentlemen resident in the provinces and one in Australia, the mention of whom called forth hearty applause. This business over, the President proceeded to deliver the

Inaugural Address.—After thanking the Council and the members for placing him in a position of distinction and honour, which had already been filled by eminent young pharmacists, Mr. Millhouse proceeded to review the objects of the Association, and he maintained that, as a means of providing social intercourse, sustaining friendly feeling, and encouraging honest and original pharmaceutical work amongst assistants, it had fulfilled the objects for which it was started. This has notably been the case since 1882, when the Association began to make special advance, which has been excellently maintained. The printed record of the Association's proceedings came in for a word of praise, as an indication of good results, and Mr. Millhouse trusted that it would be kept as a souvenir and as a work of reference. (Applause.) Passing on to the work of the present session, the President referred to the discussion, which is to be initiated next Wednesday by Mr. Dymond, on Pharmaceutical Education and Examination. He said that this subject had been brought to the front by Mr. Greenish in his address at Birmingham. The subject was one in which assistants, more than any other, had an interest, yet it was not likely that pharmaceutical legislators would pay much attention to the opinions of assistants unless they were forcibly expressed. For this reason it was necessary that the subject should be thoroughly discussed, and he hoped that the opinions expressed would receive attention in the proper quarter. After referring to the conversazione and the Burroughs-Wellcome Pharmacy prize, Mr. Millhouse appealed to young pharmacists of a scientific turn not to devote so much of their time to the higher branches as to neglect the valuable education and experience which social intercourse with their fellows affords. The same appeal was made to those who make bread and cheese the "be all and end all" of their existence. They ought to associate together, if for no other reason than that there are important subjects in pharmaceutical politics which affect them particularly. The chemist's assistant, Mr. Millhouse said, has a reasonable hope of becoming a master some day, and for this reason he should look carefully ahead, and pay attention to, and let his voice be heard in, matters political which crop up while he is an assistant. After referring to the Pharmaceutical Society as a body which, in spite of trudging, had done much good for pharmacy generally, and to assistants particularly, in providing means of improvement and instruction at 17 Bloomsbury Square, Mr. Millhouse concluded an interesting address by supporting Professor Attfield's advice, that assistants should take much more recreation. He considered that a half-holiday per week for this purpose is urgently required, and hoped that masters would make the necessary arrangements for granting it. (Applause.)

Mr. WINFREY, in proposing a vote of thanks to the President for his able address, supported his views regarding the want of intercourse amongst assistants. He thought that there was a tendency amongst them to a hermit-like existence, which was bad for themselves in every respect.

Mr. DYMOND seconded the motion, and expressed his appreciation of the remarks made in defence of the Pharmaceutical Society.

The motion was unanimously carried, and the President briefly replied.

In reply to Mr. Winfrey the President explained that the Burroughs-Welch prize will be awarded to the best essay dealing with some subject in practical pharmacy. It had reference especially to original pharmaceutical work, such as the improvement of preparations.

Mr. WINFREY asked if any original proposal for carrying out the science of pharmacy would be considered eligible? The PRESIDENT replied that chemical research was not intended, nor would politics be admitted. (Laughter.) Mr. SAUL explained that it was hoped that the prize would encourage applied pharmacy—the art of pharmacy, not the science. This was all the business, and the members spent a pleasant half-hour together while coffee was served.

The session has begun well, and it is to be hoped that the Council will be supported by assistants from all parts of the metropolis. Visitors' tickets are now distributed, and any assistant may have one on application to either of the honorary secretaries (Mr. Botham, 14 Holborn, E.C., and Mr. Farr, 50 Southwark Street, E.C.). These tickets are solely intended as cards of introduction, so that visitors may feel perfectly at home in the meetings.

THE CHARGE AGAINST CHEMICAL BROKERS.—On Oct. 8, Mr. John Angus, a chemical broker, and Mr. Stephen Raphaelevitch, his manager, again attended at the Mansion House Police Court to answer the charge against them, of which full particulars were given in last week's issue. The proceedings were principally confined to the examination and cross-examination of members of the prosecuting firm. It was elicited that that firm had not paid anything to the vendors of the cargo directly, nor had the latter made any claim upon them. Had the defenders not got into difficulties on account of the shortcomings of another firm they would have met their liabilities. Defendants were again remanded on bail.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BASINGSTOKE.

DEATH OF A CHEMIST BY PRUSSIC ACID.—An inquest was held at Basingstoke on the 8th inst., on the body of Mr. Arkas Sapp, J.P., who committed suicide by taking a dose of prussic acid. Deceased, who was a chemist and grocer, locked himself in his room on Wednesday evening, and at 11 o'clock he was found lying in bed dressed, life being extinct. A bottle containing prussic acid was found in the room near the bed, and Dr. Johnson said the appearance of the body was characteristic of death by prussic acid. No explanation of the reason for the act was forthcoming. The jury returned a verdict that deceased killed himself by taking prussic acid. Deceased was a borough magistrate and a deacon of the Congregational church.

BIRMINGHAM.

THE EXHIBITION RE-VISITED.—Messrs. Southall Brothers & Barclay have introduced this week the process of manufacturing aerated waters from natural carbonic acid gas. At Oberndig, on the Laacher Lake, near the Rhine, a pure natural carbonic gas has been obtained from the mineral springs, and this gas is liquefied and compressed into iron cylinders 4 feet long and 5½ inches in diameter. It is perfectly free from unpleasant flavour, and produces an aerated water which is considered by many connoisseurs to be quite equal to that of the natural German springs. The plant employed by Messrs. Southall & Barclay in adapting this liquefied gas to manufacturing aerated water cost about 500L. The cylinders in which the liquefied gas is stored contain

11 litres of liquid in each, corresponding with 5,500 litres (194 English cubic feet) of gas, and perfect safety is assured by the fact that each cylinder is proved by the German Government under a pressure five times greater than that to which it is subjected in keeping secure the liquefied gas.

THE ANNUAL MEETING OF THE MIDLAND COUNTIES CHEMISTS' ASSOCIATION was held on Tuesday evening at the Grand Hotel. The president, Mr. T. Barclay, occupied the chair, and was well supported by the other officers of the Association. About thirty members were present when the meeting commenced. The president opened the proceedings by a running commentary on the annual report, which narrated the transactions of the Association for the past year, and showed a balance in hand of 581., against 441. last year. The report made reference in regretful terms to the loss the Association had suffered by the death of Mr. Wm. Southall, and the president alluded to the many chemists who had taken part in work connected with the Association in previous years, but who had now gone over to the majority. Among these were Messrs. C. F. Palmer, Alfred Bird, Atkins, Hopkins, Dymond, Gould, McIsaac, Morris Banks and his son, and Cooper. He also read a telegram received from Leamington chemists at supper assembled, sending their fraternal greetings and best wishes for Mr. and Mrs. Thompson, to whom a testimonial on their marriage was to be presented. This was the event of the evening; the present consisted of a handsome clock and two bronze ornaments. The president briefly reviewed the service and help rendered by Mr. Thompson as honorary secretary to the Association as well as to the recent meeting in Birmingham of the Pharmaceutical Conference, and wished him much happiness in his changed state. These wishes were endorsed by the hearty cheers of all assembled. Mr. Thompson made a felicitous reply, and the clock joined musically and pharmaceutically in his thanks by strychnine while he spoke. The report was adopted, and the former officers were all re-elected, but the president announced that in consequence of Mr. Thompson having now to give more attention to home life a joint-secretary would be necessary, and for this position Mr. Alcock was selected. An honorarium of two guineas was voted to the librarian. To the regret of all present Mr. Perry (one of the lecturers to the classes) announced that he was afraid the classes started so successfully last year were approaching dissolution unless something unexpected cropped up. He could not say to what this was due, whether to the apathy of young men or not; it could not be the fees, as these were ridiculously low. He thought some coercion should be used by employers to compel the attendance of their apprentices and assistants at the different classes. There were only three students yet enrolled for the coming session. The president said he was surprised at the statement, and had no idea that such was the case, and would be glad to hear any suggestions to see if something could be done to make matters better. Mr. Lucas was afraid that the classes would have to be abandoned, and, on mentioning that the Association was called into existence for promoting friendly intercourse among chemists and not for educational purposes, was told that was not the subject before the meeting, and so closed a speech which might have done his hearers good. Mr. Maygar stated classes could not be kept up when the masters had to work while the assistants were out, and until the early closing Bill became law they would only be a failure. The president suggested that Mr. Maygar should move a resolution later on respecting early closing and confine his present remarks to the subject of the classes. Mr. Thompson thought that the diminution was due to young men thinking the business not being worth following. To this the president replied that during the past year more men had presented themselves for the Preliminary as well as for the Minor and Major than in previous years. Several last year's students intimated that the classes were not practical enough and had not the necessary apparatus. A suggestion was offered that arrangements should be made with Mr. Woodward at the Midland Institute for students to be taught at the laboratory there, and the president said he had had conversations with Mr. Woodward as well as with Professors Tilden and Hillhouse at Mason's College, but he could see no practical way of solving the difficulty. Mr. Stokes Dewson said this was the old tale; classes start successfully and then dwindle away. Perhaps short hours might make it better both for chemists as well as for students. He could suggest

no remedy. In the end it was left for the lecturers to report to the council what measures they would suggest. Mr. Maygar then proposed that some motion should be made in support of Sir John Lubbock's Bill, but as the hour was getting late this was not taken up. Mr. Spencer, however, said he did not think early closing would make the classes any better attended, as the Shop Assistants Act would liberate them, and recommended that a circular should be issued announcing that the lectures would be kept on at a cheaper rate. Mr. Alcock said the former Minor examination was nothing to be compared in its requirements with those imposed now. The meeting closed with some votes of thanks.

LIVERPOOL.

UNIVERSITY COLLEGE CHEMICAL LABORATORIES.—The new chemical laboratories of University College are unfortunately a source of some anxiety to the governors at present. At the autumnal meeting of the Court of Governors held at the College on Saturday last, it was stated by Mr. Robert Gladstone (treasurer) that there was still a liability of 3,000*l.* on the laboratories. The College has been compelled to draw to no less an extent than 1,786*l.* 10*s.* 7*d.* upon invested capital during the year, mainly to meet the still outstanding debt upon the chemical laboratories, and to all appearance the remaining liability of 3,000*l.* would have to be met in a similar manner from the general fund.

THE *Liverpool Mercury* says that Sir Henry Acland's address, in opening the winter session of the Pharmaceutical Society's School of Pharmacy, was the best address yet delivered in connection with the present educational term, and there are not wanting signs that it corresponds with the Society's intention of advancing pharmacy to its proper place in medical science.

NEWCASTLE-ON-TYNE.

NORTH OF ENGLAND PHARMACEUTICAL ASSOCIATION. ANNUAL MEETING.—The annual meeting of this association was held on the 8th inst. in the lecture theatre of the University of Durham College of Science, Newcastle. Mr. Martin, president, was in the chair.

The report of the Council referred to the formation of the Association last year, and stated that in the School of Pharmacy in the first session nine students entered for theoretical and practical chemistry, twenty-two for botany, and twenty-six in pharmacy and *materia medica*. The financial statement showed that the receipts for the Furnishing Fund had been 113*l.* 15*s.* 9*d.* all of which had been expended. The Pharmaceutical Society had given them a grant, of which about 47*l.* had been spent in purchasing books, microscopes, &c., leaving a balance of 2*l.* 5*s.* 4*d.* In the current expenditure account there was a favourable balance of 29*l.* 16*s.* The reports were adopted and ordered to be printed.

The prizes and certificates were presented to the successful students by Mr. B. S. Proctor; and, on the motion of Mr. Stuart, seconded by Professor Bedson, a vote of thanks was passed to Mr. Proctor.

THE PRESIDENT delivered the annual address. He referred to the foundation of the Pharmaceutical Society, and said that if they referred to the records of the early doings of the Society, and read what was written by the eminent and unselfish men who were its founders, it would be found that the keynote of their work and hope was education. For more than twenty years the Society, through its School of Pharmacy, and its system of examination, as a voluntary body, did much to elevate the calling, and send out through the country men who were fair representatives of what it was desirable pharmacists should be; so that, when public opinion had become educated to the fact that, in the interests of public safety, it was needful that all men who kept open shops for the dispensing of medicines and the sale of poisons should be previously examined, and give satisfactory evidence of their qualification, the Legislature did not hesitate to delegate those powers to the Pharmaceutical Society, and to accept their hitherto self-imposed examination as the standard of efficiency. The weak point was that the Legislature overlooked the fact that an examination which, while voluntary, answered admirably as a means of testing men's competency, would fail when rendered compulsory without pro-

visions to ensure the needful preliminary systematic training. The result was that, while in their ranks there were a few who had attained distinction in the scientific world, the examinations had not obtained for them as a body either the respect or the rewards which their fellow-citizens were generous enough in bestowing upon those who were educated to a professional standard, and practised their avocations in a professional spirit. The present condition of the chemists and druggists of this country was unsatisfactory, and the outlook of the immediate future for the majority of them was gloomy beyond description, because they were alienating, slowly it might be, but nevertheless most surely, their birthright of education and its attendant privileges, and accepting in their place all the ills of unscrupulous commercial competition. If the chemists and druggists of the country had entered heartily into the spirit which guided the Pharmaceutical Society in framing the Act of 1868, they would have been spared the sorry spectacle which presented itself, and pharmacy to-day would have been on the high road to take its position as an honoured branch of the profession of medicine. There were about 13,000 registered chemists and druggists, of whom only about 3,600 were members of the Pharmaceutical Society; and of these only 1,550 took a sufficient interest in its affairs to fill up their voting-papers for the annually-elected Council. If the pharmacists of this country had been true to themselves and to their privileges, there was no calling which would have suffered so little at the hands of co-operative stores and the class of competition he had considered. At the present time they were doubtless passing through a crisis; but if every chemist and druggist would do his best to carry out not only the letter, but the spirit of the Pharmacy Act, there need be little fear for the future. Let every registered chemist and druggist who was eligible join the Pharmaceutical Society, and take an active interest in the election and the acts of its Council. Let every registered chemist in future decline to take as an apprentice any youth who was not a fit and proper person to be trained for the business, and, when he had taken him, use his moral influence to induce such apprentice to undergo a systematic course of instruction in some competent school of pharmacy, instead of wasting the greater part of his time, and then try to "cram" in three months knowledge the acquisition of which ought fairly to have taken as many years. If chemists would do this they would probably fulfil the objects of the pharmaceutical Society, and would, for a certainty, secure the elevation of pharmacy throughout this country.

A vote of thanks was given to Mr. Martin for his address, and he was re-elected president; Messrs. B. S. Proctor and John Harrison, of Sunderland, were elected vice-presidents; Mr. Ford was elected secretary; and Mr. Rheeder was elected treasurer.

Votes of thanks were passed to the Council and others, and the meeting concluded.

RAINHAM.

EXPLOSION OF BISULPHIDE OF CARBON.—On the 8th inst. a serious explosion occurred at Rainham, Essex. A large quantity of bisulphide of carbon was brought from Messrs. Arnott & Button's chemical manufactory, South Hornchurch, and was placed in a railway-truck. Later on the truck was shunted and attached to an ordinary goods train. As the train was starting from the Rainham station, of the London, Tilbury, and Southend line, the porters heard a "fizzing" sound, and a tremendous explosion shortly followed, and the whole of the bisulphide was in flames. The liquid was contained in large drums of iron nearly half an inch in thickness, and the bursting of each of these was attended by a loud, thunder-like report. Some of the covers of the drums and pieces of iron were hurled in all directions, some falling fifty yards away from the scene of the explosion. The contents of the drums were entirely burnt out, the fire continuing for close upon three hours. No casualties occurred.

ROCHESTER.

SUICIDE OF A PRISON WARDER.—On October 5, at the Guildhall, Rochester, before Mr. W. H. Bell, coroner, an inquest was held on the body of an assistant warden at

Borstal Convict Prison, named Harvey Hussey, aged 37, who was found dead near a tree in the Back Fields, Rochester, on October 3. His wife said he had been very strange in his manner recently. He was very low spirited before he went out on Saturday morning, and cried a good deal. He had behaved strangely, off and on, for six or seven years. He had been abroad, on service in the army, and had had a sunstroke. He had several times threatened to commit suicide. Witness, thinking his behaviour peculiar, followed him at a distance, but was told to go away. Deceased was quite sober.

Mr. G. W. Watts, pharmaceutical chemist, of High Street, Rochester, said that on October 2 deceased came to his shop and applied for enough prussic acid to poison a dog. Witness objected to supply him with it, and he said he had a dog which was very spiteful and had exhibited signs of madness—showing witness a scar on his hand touched with caustic, and saying, "Look here; it has bitten me." Deceased brought Police-constable Overy as a witness, and after they had both signed the poison-book witness supplied two drachms of the acid to deceased. He did not notice anything in Hussey's manner to arouse suspicion; he appeared to be quite cool and collected, and his remarks were perfectly consistent. When he had got the acid he left. Witness gave him what he considered sufficient to poison a dog without pain. He labelled the bottle "Poison," and complied with all the provisions of the Act.

Police-constable Overy, of Rochester, said that at the request of the deceased he identified him for Mr. Watts on Saturday afternoon. Deceased told him he had a dog at home which had gone wrong, and he was going to get some poison for it.

William Hamilton, a sawyer, said he was in a field on Saturday afternoon, when he saw deceased walking towards an elm tree. He hailed witness, saying, "This is the way to do it; here goes." Witness turned round and saw him throw something in the air like glass or a bottle. He then drank a bottle of lemonade and lay down. Witness went and spoke to him, thinking the man had been drinking. He said, "That's right, old chum; have a good sleep; you'll be all right when you wake up." Deceased simply grunted out "Oh," and witness took no more notice.

The jury returned a verdict of "Suicide whilst of unsound mind."

SHEFFIELD.

THE shop, 115 Broad Lane, in this town, which has been conducted as a chemist and druggist's for the last half-century, is being relinquished and closed, the proprietor, Mr. Ebenezer Scott, having taken a business in London.

THE SHEFFIELD PHARMACEUTICAL AND CHEMICAL SOCIETY.—The new session of the School of Pharmacy was opened here on Wednesday evening, October 13. The society's premises not being suitable for the gathering it was held in the newly-erected Montgomery Hall, Surrey Street, close by. Mr. Thomas Greenish, of London, had been invited to deliver an inaugural address. That gentleman met the council and members at 7.30 at a reception. The room contained many exhibits of interest to pharmacists. Among the contributors to the display were Messrs. J. F. MacFarlan & Co., Edinburgh, who sent a large and handsome collection of alkaloids, including the whole of the products of opium; Messrs. Barron, Harveys & Co. contributed specimens of drugs; Messrs. S. Maw, Son & Thompson made a good show with sponges *in situ*, attached to ancient pottery, &c., from the Mediterranean, glass and earthenware, enamelled measures, loofahs, drug-mills, tincture-press, capsuling and pill-coating machines. A large number and variety of microscopes were in use, including old and modern patterns, which compared favourably with the more modern ones, excepting that they had a whole battery of accessories. Mr. John Moss sent a specimen of Mackey bean (*Costano-spermum Australae*). This is very uncommon, and almost the only specimen in this country. It belongs to the Leguminosæ and is reported to have very poisonous properties. The walls were adorned with a collection of upwards of 200 specimens of local flora, which reflected the greatest credit upon Mr. A. Grierson, who had collected and mounted them. Messrs. Cubley & Preston exhibited a quantity of apparatus, and Mr. W. Kirkby showed strophanthus. At intervals during the

evening an excellent programme of vocal and instrumental music was capitally rendered, and refreshments were served. At nine o'clock the president of the Association, Mr. G. S. W. Newsholme, took the chair. About 100 members were present, including many ladies and students. The president commenced proceedings by calling upon Mr. Greenish to present the prizes to the successful students of last session.

These were awarded as follows:—*Materia medica*, H. Cole (Attfield's "Chemistry"); botany, Mr. F. Spurs (Bentley's "Botany"); theoretical chemistry, Mr. F. Halluly (Attfield's "Chemistry"); practical chemistry, Mr. F. Spurs ("Hogg on the Microscope"). The president's prize (Lauder Brunton's "Materia Medica") for the best all-round man was awarded to Mr. H. Cole. Mr. Greenish addressed a few appropriate remarks to each student. The president expressed the pleasure he had in taking the chair on that occasion. Their main object was to advance pharmaceutical education, and thus promote the best interests of pharmacists. Mr. Greenish was one of the great pioneers of pharmaceutical progress both in the past and in the present. If the Pharmaceutical Society as a body could be charged with apathy towards provincial education, Mr. Greenish must certainly be exempted. His recent utterances and his presence among them that evening showed his interest in education and in their school.

Mr. GREENISH then delivered the inaugural address, which is printed on page 514.

Mr. W. WARD proposed a vote of thanks to Mr. Greenish, and in doing so briefly sketched the history of the school, and eulogised the work which had been done by Mr. Greenish as a microscopist and a pharmacist. The address they had listened to had been an extremely lucid and appropriate one, and he moved the thanks of the meeting to Mr. Greenish with great pleasure.

Mr. J. PRESTON seconded the motion, saying he would rather leave the speaker's wise sayings and epigrammatic sentences on the minds of his audience than any words of his own. Mr. Greenish's hopeful sketch would advance their profession, and he especially commended his good advice in respect to the necessary drudgery of business.

Mr. GREENISH briefly replied, and after a vote of thanks to the president, the meeting separated.

After the meeting the Council and a few other pharmacists adjourned to the Freemasons' Hall, where they partook of an excellent supper, and spent the evening in a social manner. After the table had been cleared Mr. GREENISH spontaneously rose to propose success to the Sheffield Pharmaceutical and Chemical Association, coupling with it the name of the president, Mr. Newsholme. He said the Society had made a very fair start, and urged the Council to press forward, if possible, to attain a position which very few schools occupy. He felt obliged to rise to express his gratitude at the hospitality which had been shown to him, and to express the satisfaction which he felt at his visit, and pleasure in what he had that day seen at their rooms. The success of such a society was greatly associated with its President, and Sheffield at the present time had an excellent man in Mr. Newsholme. Mr. NEWSHOLME returned thanks for himself, saying he was proud to have Mr. Greenish amongst them. His presence there would produce much good, not only to the young men of this town, but throughout the whole country. Mr. J. M. FIRNESS, Vice-President, responded for the local Society. Mr. JERVIS proposed a toast to Mr. Greenish in highly complimentary terms, Mr. ELLISON followed in the same strain, and Mr. DOBB added "The Pharmaceutical Society" to the toast.

Mr. GREENISH replied to both these toasts. He said:—"I am a founder of the Society, and I am heart and soul in its work, as I have been from the very commencement, and I recommend this policy to be adopted by all young men towards any society in which they may be connected. Sooner or later it will bear good fruit and lead to success." He was one of the committee appointed to wait upon Mr. Hazeldean relative to the appointment of chemists as public analysts. Imbued with medical ideas, Mr. Hazeldean would have given his favour for medical men; one of the first questions he asked, and to which he attached great importance, was, "Does the microscope form a part of the pharmacist's studies?" He (Mr. Greenish) being in a position to meet this question, it carried great weight in turning the balance in favour of pharmacists as public analysts. The Pharmaceutical Society is doing good work, and has

done good work. It was difficult to judge what it was doing. One reason that schools of the character which Sheffield possessed did not appear to receive the support they would like from the Council was that the real facts of the case were not brought before the committee who dealt with the question. This committee was the trustee of the property of the Society, but at the same time was anxious to promote education by all means in their power. Provincial schools in the past had been somewhat evanescent, and this was some excuse for the apparent tardiness of the Council, but their vision was now becoming extended. He had derived considerable satisfaction in all he had done for the Society; he had never waited for great opportunities but had taken them as they arose. When making an effort in a right direction he did not mind people's laughter, which was of no importance. He believed in honest efforts, which would always be appreciated. He would ever entertain a lively recollection of his visit to Sheffield, and should take home to the metropolis a keen interest in their efforts, and would always advance their cause whenever it lay in his power. Mr. Ward, F.C.S., thanked the exhibitors and musicians, and Messrs. Harrison, Kirkby, Grierson, and Spurri replied. Mr. White (Penistone) proposed "The Secretary," to which Mr. Bradwall replied.

SCOTLAND.

DUMFRIES AND MAXWELLTOWN CHEMISTS' ASSOCIATION.—A meeting of this Society was held last week, when it was unanimously agreed to re-adopt the old hours of opening and closing shops, viz., from 8 A.M. to 8 P.M. on each weekday, except Saturday, when shops will close at 9 P.M. On Sundays medicines will be dispensed during three hours, one in the morning, another at midday, and one at night. Only one firm was unrepresented at the meeting, and a deputation was appointed to call on them.

POISONING CASES.—In Dundee on October 2 a labourer named John Murphy drank the whole of a bottle of medicine which should have lasted a few days, and was found dead in the morning. Two people have been poisoned (one with fatal result) with substances taken for Epsom salts. In one case, at Alexandria, a man sent for a pennyworth of salts to a grocer, and got nitre instead. The results after he took the dose were alarming, but the man is now recovering. At Langloan a young man took salts of sorrel instead of Epsom salts, and died. Packets of both of the chemicals were lying beside each other. In Linlithgow a little boy of two years got hold of a bottle of spirits of salts, swallowed a portion of it, and died within two hours. In Aberdeen, on October 7, a man named McKessack, aged thirty-seven, was found dead in bed. A bottle containing some carbolic acid was at the bedside, and Dr. Presslie, who was called, stated that it was the cause of death. Last Saturday afternoon two men narrowly escaped death through eating poisonous mushrooms, which they had gathered near the public road, about eight miles from Galashiels. Their condition for some time was most alarming, and one of them was so violent that he had to be taken to the police cells at Innerleithen and secured with straps.

OPIUM LEGISLATION IN QUEENSLAND.—On August 10 last, in the Queensland Legislature, the second reading of an Opium Bill was moved by the Government, and carried without a division. The object of the Bill is to restrict further injury to the native race, which has become fatally addicted to the abuse of the drug. It was stated by the promoters of the Bill that north-east of the Burnett river it had been the custom for many years to pay the blacks with opium in lieu of wages, and this had also been the case since the employment of Chinese shepherds in that district. Half of the blacks near Rockhampton were dying out from the use of this drug, and, in fact, did nothing but smoke until their supply was exhausted. Blacks who had formerly dealt extensively in handkerchiefs, tobacco, and grog now used none of these articles. The salient features of the Bill are to restrict the sale of opium to pharmaceutical chemists, and to impose a penalty of not more than 50*l.*, and not less than 20*l.*, for supplying aborigines with opium. Sales of opium in bond are to be exempt from the operation of the Act.

NEW DEVELOPMENT OF THE WATTLE INDUSTRY.

MESSRS. BORROW & HAYCROFT have established at Echunga, South Australia, a manufactory of tanage, which must be of great interest to all colonists, and from the methods employed is almost pharmaceutical. About 10,000 tons of wattle bark are sent annually from South Australia alone, and it is calculated that the waste in stripping is about four times this amount. The new factory converts the branches too small to pay for stripping into a strong fluid extract called *tanage*, which contains water 60 per cent., soluble tannin 38·2 per cent., according to an analysis by Mr. G. H. Hodgson of samples from the first 80 tons recently shipped to England. The wattle "trash" yields 12 to 16 per cent. of tanage; two men can often cut and load 5 tons, and the waggons can bring in two loads a day, equal to 5 or 6 tons; and, at the price (1*l.* a ton) which the firm is paying for thinnings and tops and branches, so much is offering that the patentees are obliged to distribute their orders. The "trash" is tied up in large bundles and carted in to the factory. It is there weighed, close beside the machine which cuts it up into "chaff." This machine is very much like an ordinary steam-plane, the chisels revolving at a high speed, and cutting through 2½-inch saplings quite readily. The chips are shovelled into large wooden hoppers, into which steam is introduced from a large Cornish boiler. There are three steam-heated vats, and the liquor is transferred from one to the other, pumped into elevated tanks, and thence allowed to flow from a tap on to steam-heated evaporating-pans about 30 or 40 feet in length. The evaporation is so rapid that in traversing the pans from one end to the other the liquid is converted into a thick, tenacious, treacle extract. At the end of the pans it flows into a cistern, and thence by a kind of treacle-gate into the casks, each of which will hold about 10 cwt. All that now remains to be done is to paste on a label, put in a bung, weigh the cask, and send it off to market. In the process of evaporation a certain portion of the tannic acid is destroyed. The "plant" can be easily removed from place to place. It does not pay to cart the "trash" far, but a few square miles of wattle country will keep a factory going. The utilisation of thinnings allows the cultivation of the tree thickly on waste ground, and to begin cutting the third year. European tanners are quite accustomed to the use of such extracts, but it is said that it will be very hard to introduce it into colonial tanneries. The Chief Secretary (Hon. David Murray) and others were invited to make a visit of inspection on July 17, and seemed to have been highly gratified. While on this subject we may mention that Messrs. W. Moffin & Co. have sent the *South Australian Register* a letter enclosing a cutting from a periodical called *Leather*, published in London, which seriously reflects on the credit of the Melbourne merchants, and it is likely to injure the bark trade. *Leather* states that a large proportion of the ground bark sold there as best Melbourne ground mimosa bark never grew on the continent of Australia, but in Tasmania, where the tree is plentiful, but the bark very inferior. Its value on the market at Melbourne is about 4*l.* per ton in the rind. "The superior quality of the bark grown in Melbourne and Adelaide has created a large and increasing demand for it on the London market. The shipments from Adelaide and Melbourne since January 14* have amounted to 3,874 tons. This is a large quantity, considerably more than the two districts can produce, so that it is certain that there has been a large admixture of inferior bark from the Tasmanian forests. Our correspondent informs us that the value of this second-rate bark in Melbourne is 4*l.* per ton; cost of grinding, 10*s.* do.; bagging, 10*s.* do.; freight, 1*l.* 10*s.* do.—6*l.* 10*s.* The best ground bark realises in London from 10*l.* to 12*l.*, so that it will be seen it is a very lucrative business, and likely to continue so if the English buyers have no means of detecting the fraud."

* To what date is not stated.

Pharmaceutical Society of Ireland.

THE annual meeting of this Society was held on October 4, the President, Mr. Jas. Brunner, M.A., in the chair.

The PRESIDENT, regretting that there was not a larger attendance of members, said no new member had been proposed for the Council. All he had to do, therefore, was to take one voting-paper in which all the outgoing members of the Council were voted for and declare them duly re-elected. In one sense it was satisfactory to find that the members of the Society were perfectly satisfied with the work done by the Council during the past year; but he hoped that that would not make the Council careless. They could not shut their eyes to the fact that their transactions during the past ten years had not given complete satisfaction to every member. They heard growls like distant thunder; but it would be more satisfactory if those growls took shape, and gentlemen who thought they had cause of complaint would say what they had to say at the annual meeting. He could not say that the Society had much to boast of, but it had made some little progress during the year. At the Preliminary examinations 40 candidates came up, of whom only 21 passed. In the year before 44 candidates came up, of whom 36 passed. For the Licence 30 candidates came up last year, as against 25 in the previous year; and the number of those who passed last year was 16, as against 21 in the year before. He thought they might be satisfied that the standard of their examinations was rising, and at all events that their licentiates possessed as high if not higher qualifications than those on the other side of the water. There had been only an increase of one in the number of their paying members since last year, taking into account accessions and fallings off. The principal event of last year had been the coming into force of the regulation under which the Privy Council appointed a visitor to their examinations. Some of the visitor's comments had been very fair indeed, and must tend towards the improvement of the examinations. They had passed another year without having obtained any fresh legislation. Every day that passed they saw how very unsatisfactory the law under which they were obliged to act was. No later than last Saturday a failure had occurred in a prosecution at Navan which they could not have foreseen. The failure exactly touched the point in which they had recommended an amendment in the Act. The difficulty always encountered was to trace the actual proprietor of the establishment charged with illegal practices. During the past winter the evening meetings of the Society had been revived and had gone on very satisfactorily. They had had fair attendances and some very interesting work, the only drawback having been the modesty of their younger members.

His (Mr. Brunner's) period of office expired on that occasion; and if they would allow him he would like to propose a successor. Having thought that Mr. Pring, from his position as a pharmacist and on personal grounds, was in every way entitled to the office, he wrote to him, but Mr. Pring replied stating that for many reasons he felt obliged to decline the honour.

Mr. HODGSON (the treasurer) requested the President not to proceed further at present as regarded the appointment of a successor, and then made his financial statement. During last year twenty-eight fees had been received for the

Major examinations, and forty-five for the Preliminary examinations. One licentiate apothecary had been registered as a pharmaceutical chemist. The total amount of the fees received had been 245*l.* 14*s.* Fifty subscriptions had been received, making 52*l.* 10*s.* The total income for the year had been 405*l.* 5*s.* 1*d.* Their expenditure had been as moderate as possible, and there was not a single item in respect of which he could suggest any reduction. The only large item was 46*l.* 4*s.* 10*d.* for printing. They started the new year with a balance of 92*l.* 1*s.* 1*d.* to the credit of the Society in the Bank of Ireland, and they had 248*l.* 3*s.* 1*d.* in the Three-per-cent. stocks.

The VICE-PRESIDENT (Mr. Draper) proposed and Mr. GRINDLEY seconded the adoption of the treasurer's account, and the motion was unanimously agreed to.

Mr. HODGSON then moved that Mr. Brunner be re-elected President of the Society.

The VICE-PRESIDENT seconded the motion. It was, however, mentioned that the Council had in 1883 passed a resolution that the office of President of the Society should not be held for more than three consecutive years by the same person, and Mr. Brunner had served three years.

Mr. BRUNNER, while he was extremely obliged to Mr. Draper and Mr. Hodgson, thought the resolution of the Council was a judicious one. It would not be right that the affairs of the Society should be managed by one person. If he had been able to do anything to advance the interests of the Society, the pleasure of having done so was his greatest reward. He should like now to see the place filled by someone else, who would work with as much goodwill for the Society as, and perhaps even more successfully than, he had done.

After some further discussion the motion was withdrawn, and the President proposed Mr. W. N. Allen to fill the chair for the coming year.

Mr. HAYES seconded the motion, which was unanimously carried.

The newly-elected President took the chair and said he felt very much the honour which had been done in electing him. He feared he would very inadequately fill the position after Mr. Brunner.

Mr. Draper was re-elected Vice-President, Mr. Hodgson

treasurer, and Mr. A. Farrell registrar.

Messrs. Hayes and Brunner were elected auditors, and the various committees were appointed.

On the motion of Mr. BRUNNER it was agreed not to elect a committee to visit the examinations, in order that arrangements might be made for the more general discharge of that duty by all the members of the Council in turn.

A vote of thanks having been passed to Mr. BRUNNER for his services during the past three years, that gentleman thanked the meeting for the vote. He had done his best to advance the interests of the Society, but he felt that they had not been making the advances that they ought to have made during the last three years. There was a great deal of apathy amongst their licentiates. They did not even take the trouble to read the reports of the proceedings of the Society, and yet were too often ready to find fault about things that were really quite beyond the control of the Council. One of the great difficulties they had to contend with was the defective Act under which they worked. He trusted that now that they had Sir Michael Beach, who was responsible for the introduction of their Act of Parliament amongst them again, they might have an opportunity of bringing before him the disadvantages under which they



WILLIAM N. ALLEN, NEWLY-ELECTED PRESIDENT OF
THE PHARMACEUTICAL SOCIETY OF IRELAND.

laboured, and that he might be able to spare a few minutes of the ensuing busy session for the purpose of carrying into effect the recommendations which they made to Mr. Trevelyan last year, and which were so favourably entertained by him.

COUNCIL MEETING.

The new Council met on October 6, Mr. William N. Allen, President, in the chair.

A letter was read from the Agent-General of New Zealand, enclosing a copy of a letter from the Registrar of the Pharmacy Board of New Zealand, stating that as the law stands, persons holding the certificates of the Pharmaceutical Society of Ireland cannot be registered in New Zealand without passing the examination of the Pharmaceutical Society of that colony.

Mr. BRUNKER said this was part of a correspondence which the Registrar, Mr. Ferrall, had been conducting with different colonies for the purpose of being in a position to give replies to licentiates of the Society.

A memorial was received from the inhabitants of Old Castle, praying that the fines of 5*l.* and costs, which had been imposed by the magistrates there on Mrs. Elizabeth Harte, widow of an apothecary, and Mr. Philip Gaynor, publican, for breaches of the pharmacy law, might be remitted, either wholly or in part. The memorial stated that Mrs. Harte's late husband commenced business in Old Castle in 1868, and in 1877 Mr. Gaynor opened a drug store there. There was no duly-qualified pharmaceutical chemist in Old Castle, and if it were not for the establishments of the defendants the inhabitants of the town, and of a district extending three or four miles round, would have been without accommodation in the shape of medicine for themselves and their cattle. No fatality had ever occurred through either want of skill or negligence on the part of Mrs. Harte or Mr. Gaynor, who were entirely ignorant of the law under which they were prosecuted. A majority of the magistrates had expressed the opinion that the case was eminently one for the exercise of forbearance on the part of the Society.

The PRESIDENT: I don't think we can do very much.

MR. BRUNKER: The fines have been paid.

MR. PAYNE said that even if they had not been paid, the Council could not have complied with the request made by this petition, because the Act of Parliament gave a third of every penalty to the person who was the means of bringing the defendant to justice. If the defendants appealed, perhaps the Chairman of Quarter Sessions might reduce the amount of the fine.

Dr. MONTGOMERY said it would be an extraordinary thing on the part of the Council to condone an offence after the parties had acknowledged it.

On the motion of Mr. BRUNKER, seconded by Mr. GRINDLEY, the Registrar was directed to write to the Rev. Mr. Guehan, who represented the memorialists, informing him that the Council had no power to reduce the penalties inflicted by the magistrates at Petty Sessions.

The reports of Dr. GEORGE DUFFEY, the visitor of the Society's examinations, upon the examinations held in April and July last, published in our last issue, and on which the discussion had been adjourned, were again read.

The PRESIDENT, pursuant to notice, brought forward a series of resolutions on the subject. He said they related to six points in Dr. Duffey's reports. The first was his suggestion as to the possible rejection of a candidate by half a mark. The second was his suggestion as to the consultation of examiners. The third was his statement that one examiner performed the duties of three. The fourth was his recommendation as to small tables; the fifth that as to a standard of marks for the Preliminary examinations; and the sixth his opinion that 10 per cent. was too small a proportion in the total of marks for elementary chemistry and botany. As to the first point he (President) moved that a standard of marks be adopted for the Preliminary examination, and that a committee be appointed to confer on the subject with the examiner, Dr. Tweedy. The standard should be carefully considered and arranged; (2) That the House Committee be directed to obtain estimates for small examination tables; (3) The PRESIDENT said it was the opinion of the Council that Dr. Duffey was in error in stating that one examiner performed the work of three. It had been thought desirable, however, to alter Regulation IV. as to examiners,

so as to authorise the conduct of the Preliminary examination by one examiner.

These resolutions were all carried.

(4) The PRESIDENT moved the insertion of a clause in the regulations to enable the Council in the case of the absence of an examiner from illness or other unavoidable cause to appoint another. Mr. PAYNE pointed out that such power already existed.

A draft letter to the Clerk of the Privy Council in reply to Dr. Duffey's suggestions was read and approved.

A report of the Law Committee was dealt with.

Mr. ALBERT H. BELL, of Waterford, was elected a member of the Society.

The Council then adjourned.

PHARMACY IN AUSTRALIA.

(From our own Correspondent.)

MELBOURNE, Tuesday, August 11.

EUROPEAN INVADERS.

ONE thing above all others strikes any visitor from England who has any proclivities towards natural history. This is the wonderful rapidity and completeness with which plants and animals introduced from Europe take possession of the land. To such an extent has this been the case that the chemical market must to a certain extent have felt the effects. First among the pests dreaded by the colonists is the rabbit. It is now spreading rapidly all over Australia, so much so that the advisability of constructing rabbit-proof fences between South Australia and Victoria, between Queensland and parts of the adjacent colonies, and between other "infected" and "clean" districts has been seriously discussed. We are afraid to say how many thousands of pounds have been spent on extirpating the bunnies; South Australia alone voted 30,000*l.* last year for this object. Strychnine and arsenic mixed with chaff in dry weather, and in wet weather bisulphide of carbon placed on cotton waste in the burrows, which are then stopped, are the favourite poisons, and the Victorian Department of Lands has just completed contracts with Messrs. Felton, Grimwade & Co. for 1,500 drums of carbon bisulphide at 5*d.* per lb., and for phosphorus as required at 4*s.* per lb., and with Messrs. Rocke, Tompsett & Co., for arsenic at 19*l.* per ton. The South Australian Government has the temerity to propose to introduce rabbits infected with tuberculosis in the hope of spreading a disease which shall be more fatal than poison or shot. Their first attempt has happily failed, all the deceased rabbits dying before they reached these shores. If the disease should attack other animals and spread as rapidly as the rabbits, Australia will be a plague-stricken country.

I cannot attempt to say which is the next most terrible pest. But in New Zealand ferrets introduced to help in the destruction of the rabbits have increased too fast, and have turned their attentions to henroosts. So they have themselves become a pest, as was foretold by a member of the Linnean Society, whose name I forget, when the late Frank Buckland first suggested the use of ferrets.

Not long ago humble bees were imported into New Zealand at considerable expense, as the native bees were unable to reach the honey of the red clover and so fertilize it. They have now become a nuisance, robbing the hive bees of their share of honey in dry seasons.

Mr. N. Pearson, chemist of the Victorian Agricultural Department, has been making experiments on the best means of destroying the so-called Californian thistle, which is nothing more or less than your common *Carduus arvensis*. This has taken possession of some areas so as to exclude the possibility of cultivation. He recommends the successive applications of solution of chloride of lime at a cost of about 5*l.* an acre, and the railway department have just announced that chemicals for the purpose of destroying thistles will be carried by the Government railways at 1*d.* instead of 7*d.* per ton per mile. The milk thistle, *Silybum marianum*, is everywhere; the common chickweed, *Stellaria media*, is one of the commonest weeds near Melbourne. In a pamphlet published for the Colinderies, Mr. Frederick Bailey, Government

Botanist of Queensland, mentions forty-seven British plants as now naturalised in that colony; the *Araucaria heterophylla*, the Canadian water weed, has just been detected in Tasmania. Middle aged botanists will remember its first invasion of Great Britain, the difficulty it caused by blocking rivers and canals, and the speed with which it spread over the whole country. In Tasmania the dog rose is a nuisance, and it is found in Victoria as well. In several of the colonies, and especially New Zealand, the watercress chokes the rivers, growing several feet in height. Many years ago at Christchurch, Canterbury, N.Z., the obstruction became so great that the municipal board contracted for the removal of the weed, and a "watercress rate" was imposed on the residents. The heaps of decaying matter on the river-bank caused an epidemic of low fever. The common sparrow and the "domestic" swallows alike came as visitors and remained as tyrants.

THE RIGHTS OF ASSISTANTS TO REGISTRATION.

The appeal in the case of Joe Queen v. The Pharmacy Board of Virginia ex parte Dimock was heard before the Supreme Court on September 1 and 2, occurring about a working day. Justices Hightbootham, Weigle, and Herford were in the bench. On the motion of George Augustus Dimock, now a chemist's assistant of Atlanta, the court below had granted a mandamus to compel the Pharmacy Board to grant him a certificate, which would entitle him to registration and to practise as a chemist, on the ground that he had been a dispensing assistant for not less than three months before the passing of the Pharmacy Act in 1873. Dimock was born in 1861; in 1872, on the passing of the Pharmacy Act, he applied for registration on the ground already stated. He was then only fifteen and it was alleged, could not be registered till he was twenty-one. The Board made inquiries as to his age and were supplied with affidavits, stating that he had been employed by his father as a dispensing assistant with a salary from the age of thirteen. The Board refused to grant him a certificate in respect of his youth, and further action was deferred till 1882 and again till 1886. At the latter date the Board again refused the certificate, on the ground that they did not consider that a lad of his age could have gained sufficient knowledge to render it compatible with the public safety to grant him a certificate. The case came before Chief Justice Powell on the point whether the Pharmacy Board had power to refuse or grant certificates arbitrarily. The Board contended that they had, and that even if the applicant had complied with all the conditions, they were still empowered to refuse his certificate. The Chief Justice considered that the point was very difficult, and refused to decide it, on the ground that this was probably the last case that could come under the clause, and granting a mandamus to compel the Board to give the certificate and pay the costs. Against this decision the Board appealed. The result is a curious mixture of victory and defeat. The Board is relieved of the costs in the lower court and is to be paid the costs of the appeal. It has gained the appeal to a certain extent, that is to say, the mandamus is not to compel them to grant certificates, but to determine the question of fact whether Dimock was actually a dispensing assistant before the passing of the Act. That fact being proved the certificate is to follow as a matter of course. The judges were emphatic in deciding that the Board had no discretionary power to refuse certificates to persons who fulfilled the conditions of the section entitling dispensing assistants to registration. They had power to determine whether they had been dispensing assistants, but had no right to inquire into the knowledge or qualification of the applicants. Even if the applicant had been actually poisoning the public during the three months before the passing of the Act he would still be entitled to his certificate.

THE HOBART CHEMISTS' ASSOCIATION was established to regulate the retail prices of drugs, patent, &c., and includes most of the chemists in the town. Mr. H. Hinsey is chairman, and Mr. E. R. Ash has just been appointed Hon. Treasurer and Secretary in place of Mr. J. T. Warden, resigned. They have no printed rules, nor complete rule-book: disputes occur not infrequently, but are settled by the Association. The Association is moving to obtain a Pharmacy Act, but has decided to delay further steps till after the conference. It met on August 26 to discuss the proposed Sale of Poisons

Bill, but was unable to take decided action, owing to the fact that the Bill had not been printed. Mr. A. P. Miller—the delegate appointed to represent Hobart at the Conference—is now on his way from England, and must in any case tranship at Melbourne. He does not know of his appointment, and it cannot be known whether he will accept it for some weeks.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

AN AMUSING LECTURE ON PASTEUR.—Notices widely published in the Paris papers some time since announced that on October 10 a public lecture would be delivered at the Sorbonne by Dr. Chautemps on Pasteur's treatment of rabies, and that M. Ferdinand de Lesseps would preside at the meeting. This of itself was enough to secure a good attendance. But shortly before the appointed time it was rumoured that adversaries of Pasteur intended to create a disturbance during the lecture. As a consequence, two hours before the advertised time people began to form the line in the main court of the Sorbonne, a place evidently unfamiliar to most of them. Even to the uninitiated it was plain that "something was up," for near the outside entrance a lady in a black silk dress stood distributing handbills against Pasteur, and soon a man handed around copies of a villainous sheet defaming the Panama Canal Company and its president, F. de Lesseps.

At last, the doors of the great amphitheatre being thrown open, the crowd rushed in, and rapidly filled the side tribunes, but began growling because they were denied admittance to the best seats, those in the semicircle, which had been reserved for holders of invitation tickets. Some jumped the partition, and a little disorder and much loud talk resulted when amid great applause the entrance of de Lesseps and the lecturer put an end to the wordy warfare and restored quiet. At this time the hall was filled to overflowing. According to Sorbonne authorities the audience numbered more than 2000.

Sitting well in front of the platform was the lady in black silk, understood to have come to interrupt the proceedings. And who was she? Why, the very same who not long since brought in Louise Michel at the anti-Pasteur meeting of the Fifth Arrondissement Mairie, related in THE CHEMIST AND DRUGGIST of July 31. Poor Louise was not at the Sorbonne; she is in gaol serving out a term for attempting to incite a riot. When the cheers subsided M. de Lesseps opened the proceedings with a happy speech in praise of Pasteur's discovery. The old viscount looks well and hearty. He bears gallantly his 82 years, and the ten or twelve children he has by the English wife he married in 1869 seem in no immediate danger of becoming orphans. He then introduced the lecturer of the day, Dr. Chautemps, a member of the Paris Municipal Council. The address began by statistics of Pasteur's work, showing its continued success. To speak only of France and Algeria, where facts are easiest to arrive at, up to October 1, 1883 patients had been treated. The result had been ten deaths, eight only of which are due to a failure of the inoculation method, and two to the procrastination of the patients in beginning the treatment. Referring to the case of Christin, one of those quoted in the handbills distributed against Pasteur, he said medical certificates prove that the young patient died in Savoy not of rabies but of tubercular meningitis. The rest of the document was just as veracious as this specimen of its writer's good faith. Returning to his statistics, Dr. Chautemps said that according to well-established figures, of the 973 French patients treated by Pasteur during nine months, 155 would have died without the vaccination, while only eight succumbed. Thus 147 had been saved.

"There never were in ten months 155 deaths from rabies in France," exclaimed a female voice. Everyone turned to the interrupter, the lady in the black silk, and saw a rather pretty woman of about thirty-five, tastefully dressed, of lady-like appearance but a little wild in the eyes. It transpired afterwards she is Madame Hart, the secretary to the Anti-vivisectionist League, whose apartments are the refuge of all the vagrant cats of the neighbourhood.

"Are you Madame Hart?" asked the lecturer. "Pardon

me for the question, but I received to-day a letter with such a signature threatening me with interruptions."

"The lady has the right to do so," thundered a voice from the democratic galleries.

"Very true, but I am informed she is the same who hissed at the unveiling of Claude Bernard's statue. I am therefore justified in taking *to account* of her interruptions."

From this moment Madame Huot kept disturbing the lecture with "oh's" and "ah's," denials, and sneers. At last the audience became impatient, and loud cries of "A la porte!" (Put her out) were heard, when Dr. Chautemps said:—

"I beg you, gentlemen, to pay no attention to these interruptions. For some forms of rabies there is no vaccine."

The remark was greeted with a laugh, which even Madame Huot had to join in. Proceeding with his lecture, Dr. Chautemps went on giving statistics which do not materially differ from those already printed in THE CHEMIST AND DRUGGIST. He then spoke of the acquiescence in Pasteur's theories shown by most scientists, contrasting the childish silence of the Germans with the somewhat cautious but frank approval of the English, and reading extracts from letters written by Messrs. Lubbock, Lister, Tyndall, Huxley, and others, in favour of the inoculation treatment of hydrocephalus. He added that the method had been of late modified by Pasteur, who, emboldened by past experience, was employing what he called the intensive treatment, which had been in use for the last six weeks. In conclusion, he stated that a prominent German physician had, four months ago, promised to accept Pasteur's theories if a certain proof named by him could be given. The proof in question has now been obtained, and will soon be the object of a communication to the Academy of Sciences.

Cheers greeted the end of the lecture, and M. de Lesseps in a short address dismissed the audience. But the crowd wanted to have a look at the lady who had interrupted the proceedings, and followed her to the street out of mere curiosity, without any ill-will, when under the vaulted gate some youngsters cried "youp, youp!" imitating the yelp of a very small dog. The allusion of the gamin was simply ludicrous, but on the side-walk things took a more serious aspect. Rougher crowds, who did not know what the matter was, joined the assemblage, and Madame Huot, looking frightened, took the arm of a gentleman of English appearance, who stood by her side. With her escort, who by some is said to be Mr. Lauth, and by others Mr. Serle, correspondent of the London Victoria Street Society, Madame Huot walked down the Rue de la Sorbonne, followed by a motley crowd, constantly increasing. Matters looked threatening, when luckily M. de Lesseps came to the rescue, and, gallantly offering his arm, took the lady and her friend to a cab and drove off with them. The crowd cheered, crying, "Vive de Lesseps," and concluded to laugh, perhaps the wisest course under the circumstances.

PARIS COLLEGE OF PHARMACY.—Students have been notified that the matriculation books will be kept open at the Secretary's office from October 25 to November 10. A supplementary session, for examining those who failed to pass the last term examination, will be held on November 5. As they will have had three months during vacation to read and study, they may redeem their past defeat, and avoid losing six months of lecture attendance. The preliminary examination of pharmacists' assistants wishing to matriculate will begin on November 3. The lectures are not expected to commence before November 10 or 15, and no programme has so far been published.

HANDED TO THE POLICE BY THE PHARMACIST.—Females "in trouble" here often apply to herbalists to obtain relief, but as that class of dealers are only allowed to sell non-poisonous indigenous plants, none but harmless, and therefore ineffectual, remedies are there supplied. A woman whom the police reports discreetly designate by the initial "V," having failed with herbalists' medicines, thought she would try the pharmacists'. She knew quite well what she wanted, but she knew also that no pharmacist would dispense the abortifacient without a prescription, and that no regular physician would give her a prescription for it. Well, she wrote an order herself, signed under it the name of a well-known practitioner, and presented it to a pharmacist of the Avenue des Ternes. Unfortunately for her the pharmacist, who was acquainted with the physician's handwriting, detected the fraud and had her arrested. She is now in jail.

BARBASCO, A NEW MEXICAN DRUG.

A SHORT time ago specimens of this new drug were imported from Mexico, in two varieties, known respectively as black and white costilla de vaca. The former variety, which is said to be derived from a species of *Pithecellobium*, of which the fruits and leaves are poisonous, is employed for poisoning fish. It has long been known that the fruits and leaves of the *P. cerasifera*, L., and *P. cerasina*, Kurz, which are natives of South America, are employed for this purpose, and it is thought probable that the black costilla de vaca is derived from one of these plants. The white costilla possesses the same properties, but in a smaller degree, in addition to which its juice is used to remove hair in skin diseases.

A sample of the drug recently shown consists of pieces about $\frac{1}{2}$ inch thick, 6 inches long, and covered with an outer bark about $\frac{1}{4}$ of an inch thick. In the centre of the wood the marrow is visible. Anatomically the sample corresponded so exactly with the *Guanacis de Virgen* examined by Moeller, that there can hardly be any doubt that the drug is derived from a *guanacis*. On the other hand, it is clear that the white and black costilla are of a different character.

The bark consists of a dark cork layer with somewhat flattened cells. Upon examining the section the bark may be seen to be composed of alternating pale and dark layers. A microscopical examination shows that the latter are formed by the soft bark, which contains tangentially arranged parenchymic cells filled with a brown substance, and groups of sieve-tubes in a collapsed state. The bark-cell groups alternate with those of the stone-cells. The bark-cells thicken to a conical lumen, and plainly show the separation between the primary membrane and the thickened layers. The stone-cells have been enlarged in varying sizes and are crossed by branched pore-conductors. These alternating stone- and bark-cell layers cross a large portion of the bark in a tangential direction. The groups of bark-cells and to a slight extent of the stone-cells also are closely surrounded by parenchymic cells containing single crystals of oxalate of lime.

The wood consists of tracheids, parenchymic cells, both slightly enlarged, and the latter plainly pointed ends of large vessels, the primary spiral-vessels being formed in the neighborhood of the marrow. The marrow-rays are in single and double rows, and consist of slightly enlarged cells placed in a radial position. The marrow contains single crystals of oxalate of lime, and large single inter-cellular spaces in which no secretion was noticed.

Moeller, in his description of the *Guanacis de Virgen*, does not mention the stone-cells of the bark, but in his book on barks of trees he speaks of them when treating of the plant in question. The central bark of the *G. de Virgen* also contains chlorophyll, and the bark tastes bitter, this bitter principle having even led to the employment of the bark in therapeutics. The drug under notice, however, is almost tasteless, and contains saponin instead of chlorophyll. This presence of saponin is in so far remarkable that it has recently been discovered in many plants of widely different families, while formerly it was thought that the glucoside was only found in a very limited number of plants. Saponin was found last year in the West Indian soap bark, of the N. O. Leguminosae; in the same order it has recently been discovered in the *Erythrina* *T. Marta*, Martius. It also occurs in *Azara mucronata*, L., and, according to Abbott, in *Yucca augustifolia*. It would therefore appear that saponin is a glucoside of frequent occurrence in the vegetable kingdom.

INTERNATIONAL BUREAU FOR CUSTOMS DUTIES.—Acting upon the frequent complaints of commercial houses about the difficulty of obtaining reliable information concerning the Customs duties prevailing in different countries, the Belgian Government are said to have resolved upon the establishment of an official Bureau for Customs duties at Brussels. The Bureau is to enter into relations with foreign Governments, and to receive from them early and authentic information concerning any changes in their tariffs. A periodical publication containing these alterations will be issued in French, at the joint expense of the participating countries. Great Britain, Russia, Spain, Roumania, Switzerland, and Mexico have already declared themselves willing to take part in the project.

INAUGURAL ADDRESS.

Delivered by Mr. THOMAS GREENISH before the Sheffield Pharmaceutical and Chemical Association.

IT is a good and wholesome custom to address the students at the commencement of a scholastic session. It is with many of the students a very important period of their life, when they are about to leave the parental roof, where much is thought out for them, to commence a career detached from home influences, they will for the most part be thrown on their own resources both mental and moral, and must think and act for themselves. I have cast about me and have come to the conclusion that there is scarcely an available source from which to draw inspiration for the duty which has devolved upon me.

I have no doubt but that you have already had good advice tendered you *ad nauseam*, but if in my narrative I can introduce some little of a life's experience it may be substituting the elixir of elegant pharmacy in lieu of the infusion of a somewhat nauseous drug to a young man, commonly called good advice. I presume that I may take it for granted that you have chosen pharmacy as your calling, or it may be that pharmacy was chosen for you—pharmacy was chosen for me. I never knew the reason why, but at that time, half a century ago, it was sufficient to know that my father had chosen it for me, and I bowed to his decision; parental arguments were not then in vogue, and in ignoring them parents escaped the perplexing condition which many persons find themselves in when their verdict is all one way and their reasons tend to quite the contrary direction.

It may be the same with many of you, and it would be interesting to know if in choosing your calling the amount or character of the education required ever formed a single item of consideration; and yet, what an all-important influence will your previous education have on the future of your career, an education that should have been directed rather to training the faculties than to storing the memory!

A Chosen Vocation.

You have by your presence here this evening in some measure acquiesced in the choice of your friends, and pharmacy has consequently become your life's vocation. I have no doubt but that many a parent will be gratified in seeing the earnest faces of the students on those benches on the present occasion, and I would fain indulge a hope that there may be no disappointment to those parents during at least the coming session. You may have some members of your family, or at least some of those within your friendly circle engaged in other pursuits demanding fewer sacrifices and enjoying more opportunities for acquiring wealth, but pharmacy, if properly pursued, will ensure you an honourable living, command respect for your acquirements, and by-and-by associate your name with those that hold a place in the history and progress of science. The time may even come when some enterprising journalist may desire your portrait, with your autograph, interview you for your life's history, and think it worth while to place you amongst "our celebrities" in connection with the progress of pharmacy.

It has been said, and often repeated, that scientific acquirements render you unfit for the every-day work of life. It need not be so; there is no reason why scientific knowledge should not be combined with thorough business qualifications; but if you point to men who have grubbed through by-ways and dark ways and dirty ways till they have reached their ambitious ends, I am bound to tell you that the mental culture your training involves does not point in that direction.

Its Pleasantries and Duties.

The Mahomedans may well boast that their prophet has said, "Indulge in learning from the cradle to the grave," and the continuous acquirement of knowledge is necessary for you, as knowledge is a plant of slow growth. You may probably commence your duties in the shop. I will not yet call it a pharmacy, by sweeping it, and there is nothing derogatory in sweeping a shop. I did it for years, and blacked my own boots, and it was one of my earliest triumphs that I got a better polish on my boots than did either of the other apprentices. After this the bottles have to be dusted daily,

and cleaned occasionally. I do not believe in a dirty shop. Then commence the varied duties that devolve on an apprentice, among which "weighing up" forms an important part. As soon as possible acquire the habit of folding up parcels, small and large, neatly, as in after life you will find manipulative dexterity of great advantage to you.

You may not have many prescriptions—that "manna" may may not rain in your wilderness—but if you have one occasionally, dispense that one on some recognised system. It is remarkable how few varieties there are of what may be termed typical prescriptions. In casting my eye over above two thousand written by the leading West end physicians, about 50 per cent. merely require accurate measurement of the ingredients without reference even to the order of mixing. About 10 per cent. have one or more salts that require to be dissolved, with or without heat, but which in houses where much dispensing is done are generally kept in solution, so that in fact these scarcely differ from those previously mentioned; another 10 per cent. have some powder or powders, such as rhubarb, magnesia, or chalk, to be rubbed down and mixed with the vehicle in a mortar; the remainder would embrace the emulsions, pills, ointments, pessaries, and suppositories.

Hints to Dispensers.

In making emulsions the principle has been so frequently laid down that it should be unnecessary here to refer to the manipulation or to the relative proportion of gum to a given quantity of oil, so that prescriptions that materially differ in their characters, and that require difference in their treatment by the dispenser, are comparatively few, and should constitute no great tax on a retentive memory. Pills sometimes give trouble; the chief difficulty lies in the choice of excipient. Although we have pharmacists learned in excipients—and I honour everyone that acquires deservedly a good reputation—it is possible to reach the end of a long life as a dispenser, after sticking to very few excipients. Many papers have appeared in recent pharmaceutical literature containing suggestive details worthy of your careful perusal. One of these papers only I will refer to, ably written by Mr. Ince, now teacher of pharmacy in the school at Bloomsbury Square. He has given a variety of typical prescriptions, which may be studied with great advantage and taken as examples to be practised upon when original prescriptions are very scarce. My object here is to show you that the absence of a large number of prescriptions written by different medical men is at the present day no sufficient excuse for a student, when he is somewhat advanced in the general knowledge of the drugs of the pharmacy, not being able to dispense fairly a prescription possessing no special peculiarities. Your prescription may have half-a-dozen or more ingredients, some requiring to be measured, others to be weighed. After the use of any bottle return it to its shelf before taking down another; do not litter your counter with bottles. With a little care and attention at first, cleanliness and neatness will become firm habits.

When found take a note of it.

Commence your business life with a note-book, and, like Captain Cuttle, "take a note of it." Keep your note-book in the breast-pocket of your coat, usually nowadays devoted to a pipe, which in my younger days was considered a bad habit. If you have had anything new or suggestive brought under your notice during the day, jot it down; do not wait until you can take a long stride in knowledge. In dusting your shop-bottles note in your mind the name of each, so that you may readily put your hand on any one that may be wanted. The contents also will very gradually impress themselves on your memory. One extra bottle on each day—you will not find six bottles a week difficult—and this habit will give you the whole shop in no great length of time. You may be all the day weighing Epsom salts or seidlitz powders, and find it very monotonous work. You will at first experience some difficulty in making a neat parcel, but gradually and almost imperceptibly your fingers begin to obey the trained intelligence, and the ounces of Epsom salts, with the seidlitz powders, will assume more definite forms. And here let me tell you that no inconsiderable part of your technical training is involved in this manipulative dexterity. How valuable in a reference are the words, "He is a neat and accurate dispenser, especially neat

in putting up proprietary articles"! After business hours refer to your Pharmacopœia, and, under "Magnes. sulph.," read all that is said about it, and see whether it answers to the tests given. Out with your note-book, and in half-a-dozen lines or thereabouts jot the facts down. When that great oriental scholar, Sir William Jones, was a child he used to ask his mother—and a very excellent mother she appears to have been—a great many questions. Her general reply was, "Read, my dear, and you will know." Cultivate a habit of observation; take a note of facts. Asking too many questions implies a lazy mode of acquiring knowledge. Read or search out your difficulties; the habit will become permanent—the mind will acquire strength.

The Value of the Pharmacopœia.

With all your reading let your Pharmacopœia occupy the first place, and it will take a good deal of diligent reading fully to understand the why and wherefore of certain directions, and yet this "why and wherefore" it is that is essential for young pharmacists to know. It takes many years to develop a good pharmacopœia; it is a book that should be venerated by students.

Fact on fact the hoary pile appears,
The gathered wisdom of unnumbered years.

Study your Pharmacopœia; you will find differences in manipulation which will, I have no doubt, engage your attention. You should be fully acquainted with the reason for those differences. Take, for instance, the simplest of the preparations—the infusions. You will find that two only are made with cold water, and you are directed to macerate in a covered vessel for half an hour. That is in the formula both for infusion of quassia and calumba. In the case of infusion of calumba the object in view in using cold water is to avoid the solution of the starch by the hot water. Here recognise the difference between infusion and maceration. Again, in making decoctions the directions for some are to boil for ten minutes in a covered vessel. In one of them to boil one ingredient for ten minutes, and towards the end adding the other, the object being to avoid loss of the volatile principle—cinnamon; in a third a covered vessel is not required. There is no appreciable volatile principle in this drug. Again, in the directions for making extracts, some require cold water to be used, as in ext. opii.

In making syr. ferri iodid. it is not at once apparent why the solution of ferrous iodide should be boiled with part of the syrup. You may assume that this is not a freak on the part of the compilers of the Pharmacopœia, but has as definite an object as the use of particular proportions of water and spirit in making the extract and tincture of nux vomica. In the former the formation of glucose will delay the oxidation of the ferrous iodide, and in the latter these proportions have been experimentally shown to be the most suitable for extracting the alkaloid without simultaneously dissolving the fatty matter. Many of such queries may be solved by a little thought and reference to standard works, but you will occasionally exercise in vain your highest ingenuity in endeavouring to fathom the motives that guided the compilers of the British Pharmacopœia.

Credit from an Extract Pot.

In my early days, just after I had commenced business, a prescription was brought to me containing extract of opium with Gouland's extract—an external application in a case of cancer. My great desire to make my own preparations had impelled me to make, amongst the first, ext. opii; fortunately I had some for this prescription. I made the lotion, and its application afforded the patient great relief. It had been made up in several places previously, but the patient derived no benefit, and the lotion brought out an eruption. These facts were mentioned to the medical man in attendance who prescribed it—a leading West-end physician. His reply was, "You may rest assured you have now had it made up properly for the first time." This lotion was dispensed by me several times afterwards with the same soothing result, until death relieved the cancerous patient from all her earthly troubles. This same physician recommended me to several of his patients, some of whom are customers of mine to the present day.

What is an Apprentice to work for?

Well now, what is there within your reach to stimulate you during your apprenticeship? If you make good use of your time, and step by step and stage by stage count progress, there is the Bell Scholarship, worth any amount of energy you may give to it. What does the gaining of it imply? A session of ten months' laboratory instruction, with free admission during that period to all the lectures delivered in the Society's school, and, in addition, 30*l.* in cash to assist you in defraying the cost of living in London during that time. I daresay you all know the terms; if not, the sooner you make yourself acquainted with them the better; and if you try, and fail, you will, in effect, have acquired valuable knowledge only less in value than the scholarship itself. Emerson has said "that every institution is to be regarded as but the lengthened shadow of some great man." The Bell Scholarship carries with it the name of that great benefactor to pharmacy to whom we are all deeply indebted. You may ask me again, What is there besides or beyond the Bell Scholarship? After being trained to scientific working through your session in the laboratory, for I assume that whether you gain a scholarship or not you will spend a session in the laboratory, there is the special laboratory for research; in that the work will be thorough, and any student may, by a year or more of work on a given subject, acquire a "niche" in the temple of fame.

Compare now your advantages with the opportunities for young men in the time of my youth. There was at that time no cheery outlook; all was dreary; the knowledge acquired was acquired for its own sake, and the midnight hour was spent in the search after truth. Do not imagine that your education is at any time finished. I have now to work as hard and study as closely and systematically as ever I did to keep myself abreast of the progress in the science and practice of pharmacy.

An Educational Chapter.

It is presumed that you have passed your Preliminary before your apprenticeship, if so, you can now during your pupilage devote yourself to that which is required of you in your first and technical examination, the Minor; by commencing early the difficulty is minimised. Make yourself familiar with the *materia medica* of your shop: that will result from a habit of observation and reflection in the daily routine of the business; and an occasional ramble in the country with a small text-book will materially facilitate your study of botany; if you bring home one plant only on each occasion, and study it thoroughly, it will fully engage your spare hours after business for at least one day. A few test-tubes and reagents will familiarise you with the chemistry of the Pharmacopœia, the study of which would be much facilitated by a more practical knowledge of the rules of arithmetic than is possessed by many of those about to commence the scientific part of their education. This apparently slow and gradual process in the acquisition of the several branches of knowledge required will enable you to meet the examiners with a fair degree of confidence as to the result. I do not lose sight of the Major examination and the honourable title of Pharmaceutical Chemist, but I think the Minor, being the technical examination, should be passed by an educated and diligent student as the result of home study, so as to be able to give the session in the laboratory to scientific training, rather than to warp that training in order to pass the Minor examination.

The opportunities you have during your apprenticeship for acquiring technical knowledge will perhaps never again recur to you, and if you are simply scientific without being practical, you may, in so far as the safety of the public is concerned, be an unsafe assistant. This is worthy of your careful consideration as students of pharmacy. In the evening of every day go carefully through your shop, lecture, and laboratory notes, and compare them with the textbooks of which a list is given in connection with the school notices in the *Pharmaceutical Journal*. It may be thought by you that this absorption of time leaves no leisure for friends or recreation of any kind. Far be it from me to deprive you of fresh air, friends, or recreation; but let these be subservient to your main occupation. Do not let a day pass without the consciousness of some progress being made and when you have an idea that you have mastered a subject

sit down and try your hand at making from memory a fair copy; this will practise you in a very valuable habit of expressing yourself readily and clearly.

Sheffield or Bloomsbury?

You may think, and not without some reason, that your advantages here in the country do not equal those of a London student. I grant it, but it is not the abundance of advantages, but rather the use that is made of those you have that tell in your favour as a student of pharmacy; some of our best "all-round" candidates in the examination-room are those who have never left their own provincial towns. Identify yourselves as soon as opportunity offers with those institutions which exist in your locality. The Sheffield Pharmaceutical and Chemical Society offers you a good "bill of fare," and if your hunger and thirst continue and you have exhausted that source, I am sure that I can safely advise you to visit Bloomsbury Square, where a large table is spread, where the dishes are excellent, and, the entertainment being *table d'hôte*, the charges are moderate.

I must still say a word as regards this and other struggling provincial schools in different places throughout the country. I hope to see the time when the Council of the Pharmaceutical Society will arrange that they be systematically visited and reported on by one or more capable persons appointed for this purpose, to bring the teaching of the several schools into harmony with each other in order that assistance of the proper kind, and at the right time, may be afforded them until they become self-supporting.

But I hope there will soon be a break in the dark cloud that now hangs over provincial education, and that by means of some voluntary organisation, and the formation of provincial schools at several centres throughout the country, this great relative difference may be considerably modified, and that the earnest student may find that it is possible by making larger use of smaller advantages to graft on preliminary technical training that scientific knowledge which is necessary now and which is every year becoming more necessary for the practice of pharmacy. "The strong man and the waterfall channel their own path," and there is a contagiousness in every example of energetic conduct. You may very likely have to burn the midnight oil by-and-by; I will not therefore light the lamp to-night by detaining you any longer.

In bidding you farewell and wishing you God-speed, I shall ever feel an interest in the school with which this evening I have been brought into pleasurable contact, and shall also indulge the hope that I may shortly see at least one Bell Scholarship awarded to a candidate from the Sheffield School of Pharmacy.

Foreign and Colonial.

THE AMIR OF AFGHANISTAN has opened a dispensary in Cabul, and has placed it in charge of a native doctor, Abdul Kader, late of Sialkote. This appears to be the first and only dispensary in H.H.'s dominions.

A HOMOEOPATHIC DOCTOR has been sued by a pharmacist in Játiva for illegally trenching upon his province by preparing and supplying medicines in the form of globules to his patients. The doctor had to pay the penalty.

THE CASTOR-OIL INDUSTRY IN THE UNITED STATES.—Florida is following Louisiana in the attempt to make money out of the *Ricinus communis*. A firm in that State are preparing 320 acres to be planted in castor beans, and next year an oil mill will be erected.

HERRINGS CURED BY BORACIC ACID.—The new method of curing herrings by the application of boracic acid has proved extremely successful in Norway, and called into life quite a new industry at Bergen. There is no doubt that this discovery will in future be greatly developed.

A LUCRATIVE CONCERN.—The pharmacist's business carried on at the "Sonnen Apotheke," at Luebeck in Germany, has just been sold for the sum of 272,000 marks (13,600*l.*). Two years ago this business changed hands at 7,350*l.*, and in April of the present year it was again sold at 12,800*l.*

PHOSPHORUS MATCHES IN SWITZERLAND.—The Swiss press is busily engaged in discussing the desirability of making the manufacture of matches a Government monopoly and admitting the use of red phosphorus only in their manufacture. The consensus of opinion appears to be in favour of the project.

ADULTERATION OF OLIVE OIL IN TURKEY.—Following the example of Italy, the Government of the Sultan have issued a decree instructing the authorities to confiscate any olive oil which can be shown to have been adulterated with cottonseed oil. This sophistication is said to be largely on the increase in Turkey.

A NEW MINERAL.—It is stated that General Ignatief has presented to the Mineralogical Society of St. Petersburg a mineral recently found on his estate in the Government of Elizabethgrad. It belongs to the class of aluminites, and has not hitherto been found in nature. The Russian mineralogists have named it "Ignatiefite."

A SOUTH AFRICAN CHEMIST, whose pestle had been surreptitiously abstracted, makes the following announcement in the *Barberton (Transvaal) Herald*:—"If the gentleman who kindly relieved Mr. Angus B. Hay, of his pestle last week would oblige by removing the mortar also a great deal of unnecessary strong language would be avoided, and the loss be rendered less keen to Mr. Hay."

THE OPIUM CROP IN PERSIA, according to reports from Teheran, has been better this year than for twenty years past. On the whole trade seems to be reviving in that quarter, but the effects of this improvement will not perhaps be felt in Europe for some time, warehouses at Tabriz and Isphahan being yet replete with old stock of European goods, which has to be sold off.

FATAL ACCIDENT IN THE TRIESTE CHOLERA HOSPITAL.—On August 29 a terrible accident occurred at the Cholera Hospital in Trieste. A nurse of the name of Amelia Sudich, contrary to the rules, had put aside for private use a quantity of carbolic acid which she kept in a beer-bottle. Another nurse, noticing what she supposed to be a bottle of beer, took a draught of the liquid and died after terrible suffering.

THE LOFODEN COD-FISHERIES.—It is stated that last season's catch at Lofoden gave a very satisfactory result. 35,000,000 of cod fish were caught there, and 16,500,000 in Finnmarken. Of these, 18,000,000 were dried, and the remainder was made into "klip fish" (split cod). Cod-liver oil appears to lose its position as an article of speculation more and more. Orders came as usual from Holland, Germany, and Great Britain, chiefly for medicinal oil. The best steam-prepared oil was bought up early for Great Britain, and when in the autumn prices rose the stock was nearly exhausted.

THE DRUG TRADE OF NEW ORLEANS.—The last twelve months have been noted for the marked prosperity and increase in the volume of the wholesale drug trade of New Orleans. The leading houses in that line have reached out with more energy and increased their territory much in advance of other New Orleans trades. New Orleans is now the main basis of supplies in drugs for Nicaragua, Guatemala, Costa Rica, British and Spanish Honduras, portions of Old and New Mexico, besides the leading Southern States, namely—Florida, Georgia, Alabama, Mississippi, Arkansas, Louisiana, and Texas. A leading feature has been a marked increase in the direct import from the European drug markets.

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.—A meeting of this Association, was held at the Phoenix Hotel, Port Elizabeth, on Saturday the 17th ultimo, when several of the profession attended from various parts of the colony and Natal. Mr. Dreyer des Vages, M.I.A., in the chair. After the preliminary business had been discussed, and the minutes of the previous meeting confirmed, a new Executive Committee was elected, the following gentlemen being appointed:—A. Walsh, Port Elizabeth, president; A. Davidson, Kimberley, vice-president; J. L. Drége, Port Elizabeth, treasurer; F. E. Constance, Port Elizabeth, secretary; A. E. Austen, Cradock; G. E. Cook, King William's Town; J. Heynes, Cape Town; L. Mally, Cape Town; W. K. Mager, Queen's Town. Several important matters were discussed, and a cordial vote of thanks was passed to the late president and secretary, &c.

Medical Gleanings.

DERMATOLOGICAL NOTES.

AT a recent meeting of the Edinburgh Medico-Chirurgical Society, Dr. Allan Jamieson, of that city, demonstrated and explained a number of new modes of treatment, which he had recently seen in use by Dr. Unna, of Hamburg (*Edinburgh Medical Journal*). In the treatment of eczemas the use of ordinary soaps should be entirely discarded, and only the surfated soaps recommended by Unna (THE CHEMIST AND DRUGGIST, July 10, page 54) should be used. Cocoanut-oil soap is particularly pernicious. Ordinary ointments and lotions are also undesirable in the treatment of extensive eczemas, and Unna recommends an application composed of:—

Oxide of zinc	..	..	..	..	iss.
Gelatine	..	..	..	..	3 <i>j.</i>
Glycerine	..	..	..	..	3 <i>jij.</i>
Water	..	..	..	..	3 <i>v.</i>

Soak the gelatine in the water over-night, and afterwards dissolve by the heat of a water-bath. Triturate the zinc oxide with the glycerine, and mix intimately with the warm gelatine solution.

This solution, while warm, is to be painted over the affected parts, and afterwards covered with absorbent cotton. It does not cause irritation. Dry eczemas of the palms are very intractable, owing to the difficulty of reducing the horny condition of the skin; but the recently invented salicylic *plaster-mulls* (plaster-muslins) have a wonderful effect in this direction. These plaster-mulls are described by Dr. Unna in a paper contributed to the *Lancet*. They consist of a very thin sheet of gutta-percha, coated on one side with an adhesive substance (aluminium olcate) containing one or more medicinal substances, and backed on the other side with undressed muslin. "Salve-mulls"—which are excellent for after-dressings—are more soothing preparations, and consist of ointments having a base of benzoated suet and lard spread upon muslin. These descriptions are somewhat vague, but it is stated that the preparations are obtainable from Mr. Beiersdorf, 40 Wohlers Allée, Altona, near Hamburg, who is Dr. Unna's consulting pharmacist. The paper in the *Lancet* is taken up with an account of the author's endeavours to overcome the tendency of salicylic acid to cause intense pain where applied externally in strong preparations. This pain is particularly manifested in cases of lupus, and various narcotics and other substances were used in combination with the salicylic acid in order to prevent or minimise the pain, these soothing agents including mercury, iodoform, cocaine, opium, extract of cannabis, chlorhydrate, and creasote. Of these, opium, extract of cannabis, and creasote were alone useful, and cocaine proved to be entirely useless for lasting effect. Further experiment showed that creasote was the most satisfactory anaesthetic, and, being much cheaper than opium and cannabis, is the body which Unna recommends for combination with salicylic acid. He considers that creasote is the morphine of the skin. The proportions in which the two agents are used are as follows, the quantities stated being for a roll measuring 1 metre long by 20 centimetres broad:—

No.	Salicylic acid	Creasote
1	10 grms.	20 grms.
2	20 "	40 "
3	30 "	50 "
4	40 "	40 "
5	50 "	50 "

The best method of applying the plaster-mulls is to paint a 4-per-cent. solution of cocaine over the lupus surface, and in ten minutes apply the muslin, as strong a preparation as the patient can bear being used. The dressing should be changed once, or at the most twice, daily, and the parts cleaned, according as the susceptibility of the patient will allow it, with limimentum calcis, oil, lard, or even with soft-soap and hot water. Dr. Jamieson corroborates Unna's statement as to the value of this treatment in the destruction of lupus tissues, and at the meeting exhibited two patients who had almost recovered under it.

Lanoline.—So far it is noteworthy that no extensive trial of lanoline in the treatment of skin-diseases has yet been

recorded. It is clearly established that it is a better vehicle than any other for substances which are required to be absorbed by the skin. Several formulae have recently been suggested, amongst which the following may be noted:—

Lanoline Eye Salve.

Hydrarg. oxid. flav.	..	..	..	gr. xii.
Adipis	..	..	..	3 <i>jij.</i>
Lanolin	..	..	..	3 <i>x.</i>
Fiat unguentum.				

Ung. Diachylon c. Lanolin.

Emp. plumbi	..	..	..	..	3 <i>v.</i>
Ol. oliveæ	..	..	..	..	3 <i>jij.</i>
Lanolin	..	..	..	..	3 <i>jij.</i>

Melt the lead plaster, and add the olive oil; when the mixture begins to cool add the lanoline, and incorporate it intimately.

This makes a very firm ointment, which melts readily on the skin.

HYDROGEN PEROXIDE IN DIPHTHERIA.

IT is a somewhat remarkable circumstance that the most recently recommended remedies for throat affections are oxygen-producing bodies. This is particularly noticeable with terebene, which is eminently a body of this kind, and no doubt acts on account of its "oxygen-carrying" properties. The latest remedy of this class is peroxide of hydrogen itself, which is recommended by Professor Hofmokl, of Vienna, for the treatment of diphtheria. The remedy should be taken internally, as well as by inhalation. The mixture for internal use is a 2-per-cent. solution with $1\frac{1}{2}$ per cent. of glycerine: one teaspoonful of the mixture to be given every two hours.

BREVITIES.

CARBOLIC ACID is the latest cure for carbuncle. A 1 in 8 solution in olive oil injected to the extent of a few drops into the abcess, followed by external application of a lotion composed of carbolic acid, chloroform, and olive oil, of each equal parts, is stated to give gratifying results. For ingrowing toe-nail the acid is also used successfully in 1 in 20 solution (watery). This is applied before the nail is removed, and produces local anaesthesia. Afterwards antiseptic dressings—such as vaseline, boric ointment, and powdered iodoform—are used, and the part heals up in about three weeks.

The Use of Escharotics for reducing exuberant granulations or "proud flesh" is condemned by Dr. Herbert Snow (*British Medical Journal*). He says "exuberant granulations simply indicate local vitality, and a healthy process of repair; if severely let alone, the wound will heal quite as quickly, under suitable dressings, as after any amount of cauterising, and no surgeon who has courage once to abandon an antiquated tradition still current in the schools will ever recur to it." What the appearance of the cicatrix may be is not stated.

Iodized Lanolin, containing 16 grains of iodine per ounce of lanolin, has, in the hands of Dr. Keen (Philadelphia), reduced granular swellings more quickly than any other iodine application.

Phenolphthalein Paper has been utilised by Dr. Schaffer, of Berne, for the purpose of giving a rough indication of the amount of carbonic acid in the atmosphere of schools, &c. (*British Medical Journal*). A piece of the paper is first stained red with lime-water, and this stain disappears in air containing carbonic acid, and does so the more rapidly the larger the amount of the acid present in the air. It is only necessary to mark the time which has been required for the disappearance of the stain, and to consult a table which shows the amount of the acid corresponding to the time.

Intestinal Lesions.—From experiments made by MM. Charin and Roger, it would appear that it is possible that intestinal lesions may be induced by the internal administration of mercuric chloride.

Enteric Fever.—Five-minim doses of *tinct. ferri perch.* every two hours, in combination with glycerine, have been successfully used by Dr. C. R. Illingworth (Clayton-le-Moors) in the treatment of enteric fever. The temperature fell to the normal in from eight to twelve days.

Friedrichshall.

THE WELL-KNOWN APERIENT MINERAL WATER.

IMPORTANT NOTICE.

By reason of an improved method of caption, by which dilution is avoided FRIEDRICHSHALL WATER will be found now to be of CONSIDERABLY GREATER STRENGTH and EFFICACY than heretofore.

The ordinary dose is a large wineglassful (4 ounces) taken fasting. Most efficacious and more acceptable to the palate when heated or mixed with an equal quantity of very hot water.

"I know nothing at all equal to Friedrichshall. The LONGER it is taken the SMALLER is the quantity necessary to effect the purpose."

SIR HENRY THOMPSON, F.R.C.S., Lond.

Of all Chemists and Mineral Water Dealers. [2]

SEE SEABURY & JOHNSON'S Advertisement of INDIA-RUBBER POROUS AND SPREAD PLASTERS on page 27.

HEARON, SQUIRE & FRANCIS, Wholesale and Export Druggists.

Established



1714.

FOOD FOR INFANTS IN BULK.

PHARMACEUTICAL PREPARATIONS IN VACUO.

MEDICATED BISCUITS—"HERON," Nos. 1, 2, & 3.

5 COLEMAN STREET, LONDON.

SILICATED CARBON FILTERS. PATENT MOVABLE BLOCK SEE ADVERTISEMENT, PAGE 22

MUMFORD'S PURE FULLERS EARTH

Finest powdered, 14s. per cwt.; in 7, 14, 23, 56 lb. Packages, 16s. per cwt. net, bag included, delivered free in London. Samples post free. [3]

G. S. MUMFORD, STEAM MILLS, FARRINGDON ROAD, LONDON, E.C.

EDITORIAL NOTES.

THE UNITED STATES NATIONAL FORMULARY.

BRITISH pharmacists who are exercising their brains and their consciences with schemes to divert from the original makers to themselves the profits resulting from their skill and enterprise, all for the promotion of high class pharmacy, may be interested to know how the American scheme with the same object is getting on. To the credit of Transatlantic pharmacists, it ought to be stated that the idea of their

being engaged in anything but a holy crusade never seems to have arisen. The American Pharmaceutical Association has adopted as canonical all the straitest of pharisaic notions about nostrums, and it is the mark of "high tone" in the United States to shudder at the thought of anything proprietary in the way of medicine. The Association referred to, with a view of "spoiling the Egyptians," last year appointed, or rather re-appointed, a committee, which had already been at work for three years on a little pamphlet known as the "New York and Brooklyn Formulary," and instructed them to extend this work for the benefit of pharmacists of the United States generally.

Now, if 50% had been voted to one competent man, he could in two or three months have compiled as generally satisfactory a set of formulæ for non-official preparations as could be desired. His results would not have satisfied everybody, and it may happen that when the twenty gentlemen who, according to their own report, have held meetings almost weekly, and have "criticised, analysed, and otherwise examined many hundred specimens of compounds," shall have published their decisions, there may even then be room for further criticism.

In their report, presented at the late meeting of the American Pharmaceutical Association at Providence, the committee explain that much diversity of opinion prevailed in the beginning respecting the scope of the proposed formulary. After well considering the subject in all its bearings, it was finally agreed that the wisest plan would be to gradually include in the formulary every preparation legitimately belonging to pharmacy which is in professional or popular demand, and for which the U.S.P. prescribes no standard. On the other hand, it was decided that all purely technical, empirical, cosmetic, trivial, or noxious articles should be excluded.

Having set to work with so much devotion it might have been anticipated that the draft of the Formulary would have been ready for this meeting. But that is not the way committees work. This one "deemed it unwise" to proceed too recklessly, and they recommended that another year be devoted to further critical examination of the formulæ collected. Their work, they propose, shall be called the "National Formulary," and shall be published under authority of the American Pharmaceutical Association. They propose that it shall include formulæ from old U.S. Pharmacopœias and from foreign Pharmacopœias, whenever such are in demand; but evidently a leading idea is that proprietary preparations shall be imitated with more or less success. So far as it proceeds in this direction the Association will find ultimately that they have only been playing into the hands of the specialists. Their imitations may in some cases come very near the mark; occasionally they may be better than the originals; but physicians who have had experience with a speciality will in most cases prefer to stick to that, rather than experiment with admitted imitations. The result will be what has come about in consequence of our own pharmacopœial attempts to imitate nostrums. "Pulv. Jacobi *rer.*," and now, we understand, "Chlorodyni (C. B.) *rer.*," are prescribed; an unpleasant suggestion in reference to the official preparation. Could anything be a better advertisement than this for the nostrum?

CHRYSAROBIN: WHAT IS IT?

THE pharmacopœial stumbling over the extensively used remedy chrysarobin is giving rise to annoying complications to numerous wholesale houses. It is well known that until the Pharmacopœia was published chrysarobin was almost invariably prescribed as "chrysophanic acid," although it had

been conclusively proved that it is not chrysophanic acid. Goa powder was also prescribed, but infrequently, and as infrequently "chrysarobin" appeared in prescriptions. Since the Pharmacopoeia was published a large demand has sprung up for "chrysarobin," and in many cases we learn that Goa powder is sent out for it; wholesale houses who do so maintaining that Chrysarobin, Goa Powder, and Araroba Powder are synonymous terms for the same thing, viz. what is brought to the market and sold as araroba, and they hold that the Pharmacopoeia is their authority. Unfortunately a mistake or misimpression once made is not easily removed, and it was freely stated, shortly after the Pharmacopoeia was published, that a mistake had been made about chrysarobin. The facts of the case regarding chrysarobin may be recalled briefly. Mr. David Kemp, of Bombay, suggested the name *Chrysarobine* for araroba, but afterwards two German chemists gave the name *Chrysarobin* to the substance which Attfield had isolated from araroba and called (erroneously) *Chrysophanic acid*. *Chrysarobine* never became a commonly accepted term for araroba. "Chrysophanic acid," however, was largely prescribed, and although it is many years since it was pointed out that the substance so called is not that acid, but *chrysarobin*, this latter term was but little used. In the United States Pharmacopoeia it is properly applied, and it is directed that chrysarobin be used when chrysophanic acid is prescribed. Why the British Pharmacopoeia authorities did not follow suit appears to be due to their belief that chrysarobin is "potential chrysophanic acid." They still maintain this position, but in response to criticism, made a slight alteration in the characters and tests, so that the paragraph now reads, "*as purified by solvents it is a light brownish yellow, minutely crystalline powder,*" &c. This was intended to imply that only the light brownish yellow powder should be sent out when chrysarobin is ordered. It is a regrettable matter that the Pharmacopoeia authorities did not make a full correction when they were at it. What is wanted is a descriptive article for araroba as it comes into the market, and another article giving the mode of preparation of, and characters and tests for, chrysarobin. It is perfectly clear, however, that the authorities do not mean that araroba and chrysarobin are the same thing. The latter is obtained from the former by treating with benzol and evaporating the benzol solution, when the yellowish crystalline chrysarobin is obtained, and when chrysophanic acid is ordered, it is this chrysarobin that is meant.

THE PILL TRADE AND THE INLAND REVENUE.

CHEMISTS AND DRUGGISTS have reason to be thankful to Messrs. Newbery & Sons for their persevering efforts to get from the Board of Inland Revenue authoritative decisions in regard to obscure points in the Medicine Stamp Act. We are ourselves obliged to this firm for the opportunity of publishing from time to time summaries of their correspondence with the Board.

We have now before us a new series of letters between Messrs. Newbery and the Board, the contents of which may be of interest, though it must be admitted that the grievance suggested is of a rather recondite nature. Having ascertained that a pure drug put up as a corn solvent might bear any form of words on the label without rendering it liable to medicine-stamp duty, Messrs. Newbery, at the suggestion of a customer, asked the Board whether he (the customer) might "sell without liability to medicine duty podophyllin in the form of pills bearing the following label:—'Thompson's Liver Pills. Dose: One or two morning and night.'

These pills are composed of a pure drug only. Thompson, chemist, London.' Mr. Melville, the solicitor to the Board, replied that "a pure drug is not liable to medicine-stamp duty, however recommended or described." Whether the Board would regard a pill composed of podophyllin, plus some excipient, as a pure drug is not quite clear from this. In this matter the practice of the Board has not been quite uniform, and in deciding upon the liability of certain "foreign medicines" some years since (see *THE CHEMIST AND DRUGGIST*, October, 1878) the Board declared Bravais's iron to be exempt because they found it to be simply a solution of pure oxide of iron, but they insisted that capsules containing balsam of copaiba or ether and sugar used to dilute strong medicines in certain granules were "ingrédients" and made the medicines compound.

Messrs. Newbery followed up the Board's answer by next putting the following rather complicated question:—

"Our customer, in whose interest we are writing, sells a compound liver pill, which is undoubtedly liable to duty, and which is therefore stamped. The pills of pure podophyllin which he sells unstamped are not styled 'Thompson's Liver Pills,' but 'Liver Pills' with the vendor's name and address in a ring encircling the description 'Liver Pills,' and the directions for use. The podophyllin pills being undoubtedly outside the provisions of the Medicine Act, we presume our customer is acting well within his legal rights in selling as 'Liver Pills' two diverse preparations, one as a proprietary medicine and one as a non-proprietary medicine, as we have stated?"

To this the solicitor replied "that a chemist may sell pills liable to medicine-stamp duty and duly stamped at the same time that he is selling pills composed of a pure drug, and therefore exempt from duty, and also bearing his name, 'Thompson's'; but I must add that unless he is careful to distinguish the pills in such a manner as to make the difference between the two kinds and the packets containing the same quite obvious to a purchaser, such a course would be highly objectionable, and might raise a presumption of fraud upon the revenue."

Then continued Messrs. Newbery: "It is, and has long been the practice to sell such pills in small boxes labelled 'Liver Pills, prepared by Thompson' at 1*d.*, 2*d.*, and so on, up to 6*d.*, and sometimes 1*s.* per box, without, of course, any handbill recommending them or claim to exclusive right. Pills thus labelled are generally understood not to need stamps." If they sell the same pills (we now abbreviate the question) differently packed, calling them Thompson's, issuing handbills recommending them, and of course duly stamping them, are those pills sold in the form first described thereby rendered liable?

The solicitor to the Board replies that they are. The justice of this is obvious. Mr. Thompson may sell "Antibilious Pills, prepared by Thompson" if he does not claim a proprietary right in them, or recommend them. But if he wants to put those same pills as a proprietary medicine, he must tax his ingenuity to find a special title for them.

THE REDWOOD TESTIMONIAL FUND.

WE understand that it has been decided to close this fund by the end of this year, and we are asked to remind those chemists, who would like to see founded some permanent and worthy memorial of Professor Redwood's most valuable services to scientific and practical pharmacy, that their early contributions and the exercise of their influence will be much esteemed by the gentlemen who have undertaken the onerous duty of collection. Dr. Redwood is a man whom we all honour; in whatever has been done for the advancement of pharmacy during the past half-century—and, notwithstanding all complaints, the progress accomplished has not been inconsiderable—he has always taken a leading share of the hard work, though some of us think he has not had his rightful share of the credit. It is to be hoped, now that the oppor-

tunity is before them, pharmacists will do whatever lies in their power to give the venerable Emeritus Professor such an assurance of their respect as he so well deserves. The season for the meetings of the provincial associations is now upon us, and it would be gratifying if at these the subject were mentioned. Communications or contributions should be addressed to Mr. Carteighe, 172 New Bond Street; Mr. John Williams, Cross Street, Hatton Garden; or Professor Dunstan, 17 Bloomsbury Square.

Mr. Greenish, as the popular pharmaceutical orator and fashionable celebrity of the season, at Sheffield, has been "starring" before the Sheffield Pharmaceutical and Chemical Society, and we have the pleasure of printing his address in this number. Like all Mr. Greenish's literary productions, it will attract readers by its sympathetic tone and by the streaks of dry humour which mark it. Young men and old men will be sure to read it from beginning to end, and we can hardly say that any harm is likely to result. The recommendation to apprentices to study *materia medica* and *pharmacæ* while they are supposed to be dusting bottles is unsound and dangerous; but masters who, like the speaker, "do not believe in a dirty shop" will probably take care that this advice shall remain theoretical. We are quite in accord, however, with Mr. Greenish in preferring a note-book to a pipe, if either is to obtrude from the breast-coat pocket. A pipe in the breast-pocket of the coat is usual, it appears, nowadays among Mr. Greenish's acquaintance. What must the Sheffield gentlemen have thought of the West-end circles, or of the Pharmaceutical Council, where we presume Mr. Greenish has made his observations?

**

Shop Hours Sir John Lubbock, speaking at a recent meeting at Glasgow, which had been convened in favour of the Shop Hours Bill, said it was admitted on all hands that in many parts of the country, and especially in great cities, the hours of labour of small shopkeepers and shop assistants were excessively long, but now definite proposals were made to remedy the evil. Perhaps to some the proposals might seem stringent, but after all twelve hours would be worked on five days, and fourteen on the sixth day. Surely that was long enough. It was objected to the proposal (1) that it was an undue interference with trade, and (2) that it would not give artisans a sufficient time for shopping. Against that there was the fact that the majority of shopkeepers were foremost in wishing to benefit their assistants in the manner indicated. Labour members like Mr. Burt and Mr. Broadhurst had been unable to see the objection about artisans shopping, and it would be extraordinary if working-men, who had secured shorter hours for themselves, really wished shop assistants to slave for fourteen hours a day. He considered that without legislation there was little hope of shorter hours, and the fate of the shop assistant would still be a life of drudgery and an early grave. There were over a thousand persons at the meeting, which was presided over by Mr. Cameron Corbett, M.P., and many influential citizens were present. The feeling seemed unanimous in favour of the Bill, and also in support of a resolution expressing grateful appreciation of the past and present efforts of Sir John Lubbock for the general improvement of the condition of the working and shop-keeping classes.

**

Escape of Chlorine. According to Mr. A. E. Fletcher, the chief inspector under the Alkali Works Regulation Act, a means has been discovered by which one of the greatest nuisances in the manufacture of chemicals—the escape of free chlorine—can be prevented, and made a source of increased profit. The inventor is said to be Mr. Alfred Allhusen, of the Newcastle Chemical Company. He has so arranged the various pipes which connect the chambers to each other, and to the chlorine stills, that they now work in series in such a manner that, while the first or strong chamber may revel in excess of chlorine, the unused portion of the gas passes into a second and third chamber, meeting there fresh lime in which to be finally absorbed. The result is that bleaching powder of the unusual strength of 39 per

cent. is produced, while the discharged air does not contain more than a trace of chlorine.

**

An Ancient MSS. contained in the Capitular archives of Formulary. Ivrea, in Piedmont, Professor Piero Giacosa has found a book of recipes which goes back to the eleventh century. The MS. in which the collection is inserted belonged to Warmund, Bishop of Ivrea, famous even in the first years of the stormy eleventh century for his love of science and literature. Before the prescriptions comes a group of recipes for writing with gold, for making gold ink, and for illuminating parchment. Then follows a catalogue of maladies, thirty-two in number, more than half of them relating to the eyes, while the remainder have reference to the head, the ears, the throat, the kidneys, and so forth. Each malady has its remedy—one or more—the majority belonging to the vegetable kingdom, though the animal world supplies not a few. Among the latter we have fat of eels, raw flesh, the gall of a great variety of animals, such as the eagle, the cock, the hyena, the hare; then goat's dung, hartshorn, serpents' skins, worms, &c. The vegetable remedies include aloes, camphor, cassia, lettuce, honey, opium, sundry aromatic herbs, rue, linseed, mustard, and so on. Finally come a few chemical and inorganic remedies: orpiment, lime, nitre, sulphur, French soap, &c. According to Professor Giacosa the medicines are mostly derived from Dioscorides and Pliny. He also finds a correspondence, in the matter of arrangement, between the prescription book of Ivrea and the work of Lucius Apuleius Platonicus on the virtue of herbs—a work of which the compiler of the prescription book availed himself as a guide, and of which the Chapter of Ivrea doubtless possessed a copy, now lost. The original part of the prescription book betrays a scientific turn of mind in advance of the age as to the conception of disease and the *modus operandi* of remedies. The author signs himself "Petrus Magnus"—probably a fictitious name, it having been the frequent habit of early mediæval writers on medicine to assume the surname "magrus" (lcan), an epithet, according to Professor Giacosa, which implied a not very lucrative practice.

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Infringe- "The Absurdity of the Pharmacy Act" is the title of a letter which has been sent to us, but **Pharmacy** which is not quite suitable for publication. We can quite believe that the person referred to by **Act.** the writer has infringed the Pharmacy Act, but he has not been tried and convicted, and therefore we are not justified in treating him as guilty. The writer of the letter also complains of the "carelessness and indifference of the officials of the Pharmaceutical Society," but he does not give us definite particulars. What he does say is:—"Through the vigilance of the Registrar in being determined to enforce the law, no prosecution of him has taken place." We cannot quite make out the bearings of that sentence; but we recognise the importance of the subject, and we are quite prepared to believe that there is a tendency at Bloomsbury Square to red-tapeism and mechanical procedure, if not to carelessness and indifference. But we really have no clear evidence against the Pharmaceutical Council in this matter. We know they spend a good deal of time in considering cases brought before them, and no doubt many of the complaints are of such a nature as to afford no evidence of infringement of the Act. But the Pharmaceutical Council being the only possible prosecutors of illegal traders, it is very desirable they should be kept up to their work, and we will give careful attention to any fully-detailed reports of infringements which may be sent us.

**

Earthquakes and Drug Stores. Mr. George J. Luhn, of Charleston, narrates in the *Pharmaceutical Record* his experience of the earthquake of August 31. He was on a car going home when the shock occurred, and it seemed as if the ground rose 12 to 18 inches and then receded. He found the front of his residence fallen and for a time he and his family lived in a woodshed. Next morning, on visiting the city, he found his loss at the drug store quite heavy, though, strange to say, only in a certain portion of the store. A south window had had the contents totally destroyed, and these unfortunately consisted of expensive cut-

glass ware; the loss in that window counted into hundreds of dollars. The prescription counter had been completely wrecked, and the patent-medicine cases left with few bottles on the shelves. The floor was covered with all kinds of patent and pharmaceutical preparations. The north portion of the store did not suffer at all; the bottles on the shelves and the windows were almost uninjured. And yet it seemed that the shock came from the north. Almost all the drug stores were similarly wrecked. The medical college was completely ruined, and the hospital so much injured that the patients had to camp out.

**

The A.P.A. Somebody at the late Providence meeting of the American Pharmaceutical Association and the B.P.C. taunted his fellow-pharmacists with a remark to the effect that while the British Pharmaceutical Conference could get an attendance of some 500 members at its meetings, the American Association could not muster above half that total. The remark gives the New York *Pharmaceutical Record* an opportunity for an easy victory over the speaker, and for a demonstration of the general superiority of the Pharmaceuticus Americanus over the corresponding animal Britannicus. The American Pharmaceutical Association has some 1,300 members enrolled, and gets attendances varying from 60 at Atlanta, Georgia, to 372 at Philadelphia. Both these figures are exceptional, however, and the average attendance for the past eleven years has been 178. The average attendance at the British Conference during those eleven years appears to have been about 140, but then the latter body claims a membership of over 2,000, and, besides, its members have much easier distances to travel. Clearly we are defeated in regard to attendance, but weigh the papers, Professor Bedford. You will have to put a lot into your scale to beat us for heaviness, if that means weight.

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Saccharated Mortar. Our forefathers were far ahead of us in building stone walls. Their methods were better, perhaps, and certainly their mortar was much superior to ours; in what respect we cannot exactly tell, and the chemist who discovers the secret may make a fortune. We know that in Pictish ruins there is evidence of something more than mortar; for the charred remains of wood are to be found in the solid composite masses which after centuries are all that is left of strong fortresses. The use of the wood was to give potash on burning, and this potash was the element required for the formation of a double silicate that acted the part of a cement. The object of mixing sand with lime in making mortar is the same, viz., gradual formation of a silicate. A slight departure from this is suggested by Mr. Thomson Hankey in the *Times* in a proposal to substitute sugar for sand. It would appear from recent experiments that it is a valuable ingredient in mortar and cement, having strong binding qualities. In the experiments finely-powdered lime was mixed with an equal quantity of good brown sugar, with the addition of water, and the result was a cement of exceptional strength. This has been tried at Peterborough Cathedral, two large pieces of stone of the broken tracery of a window having been joined firmly together by sugared mortar. After extended trial the conclusion arrived at is that the new mortar is as good as Portland cement; the only question remaining to be settled is one of cost. This is a new application of a well-known fact. Sugar and lime combine in various proportions to form, as in the case of mortar, a hard insoluble compound, and also, as in *Liq. Caleis Sacch.*, a very soluble substance. There must be a large number of druggists' apprentices who have unintentionally made the former "saccharate" in the course of making stock, and these may now regret that they did not apply the experience gained to house-building.

**

Councillors and Annuitants. At the last meeting of the Pharmaceutical Council, in the course of a discussion on the Benevolent Fund, the President reminded members that "it was the custom that members of Council should show their disinterestedness by refusing to place their names on the cards of any of the candidates, lest a false impression might be conveyed." The propriety of

that custom must be obvious, and it is therefore with some surprise and regret that we receive a circular urging the election of one of the candidates for the annuities, signed Edward N. Butt. Mr. Butt is a member of the Council, and is on the Benevolent Fund Committee. He states in the circular referred to that he has been intimately acquainted with the candidate he recommends for twenty-nine years. Mr. Butt has made it quite clear that he for one was not in a position to give an unbiased vote when the candidates were selected, and the Council will only pay proper respect to the subscribers if they pass a vote requesting Mr. Butt to withdraw his services from the committee to which the administration of the Fund is practically entrusted.



AND

Literary Notes.

Sixième Congrès International Pharmaceutique sous le haut protectorat de sa Majesté Léopold II, Roi des Belges, et sous le patronage du Gouvernement. Tenu à Bruxelles, du 31 Aout au 6 Septembre, 1885. Compte-Rendu, par E. Van de Vyvere, Secrétaire-Général. Brussels: H. Lamertin, 33 Rue du Marché-aux-Bois.

CONDENSED reports of the Pharmaceutical Congresses of Paris and of St. Petersburg were published by the Pharmaceutical Societies of those cities, and an excellent report of the London Congress of 1881 was prepared and issued by the British society. These examples have been followed on a magnificent scale by their Belgian successors. The report of the London Congress occupied some 300 pages; that of the Brussels meeting fills nearly 1,300. There is, however, a notable difference between the two reports in one important respect. That published in England was presented in English, French, and German. The new volume contains a very few original papers in German, and the formulary of the International Pharmacopœia in Latin. All the rest is in French only. There are two words in English on the first page and, as far as we know, no others; and one of these is incorrectly spelt. At the London meeting, it is said, after the committee had decided that a visit to the United States was hardly practicable, and had suggested Brussels, Rome, or Geneva for the next Congress, the cry "The Brussels," we are told, rose from all parts of the assembly. The preface goes on to describe the hesitation of the Belgian pharmacists to accept the duty thus thrust upon them, and it seems that they were at last almost goaded to the task by ourselves and a German journal. "These publications" (THE CHEMIST AND DRUGGIST and the *Pharmaceutische Zeitung*), says the reporter, "reproached the Belgian *pharmacien*s for their pusillanimity, and strongly urged them to carry out the resolutions of the London Congress." Mr. Van de Vyvere was the most urgent orator in favour of carrying out the proposal, and he was handsomely punished for his persistence by being appointed the chief general secretary, with a correspondence which must have been estimated by hundredweights. After narrating the preliminary proceedings of the Executive Committee, the report gives a list of the delegates, and of the effective members, who seem to have numbered in all about 1,000. The United Kingdom contributes only 32 to this list, and the United States only 8, and not all of these attended. Some of these are rather curiously described, the most amusing error being that Mr. Seabury, of the well-known plaster firm, is made to appear as secretary of the Seabury and Johnson College of Pharmacy, New York.

The solid part of the work consists of a number of reports prepared for the Congress and submitted to the members for discussion. The first on the "Adulteration of Foods" (*Falsification des Daurées Alimentaires*) was drawn up by Dr. Belval, and includes a survey of the state of the law in respect to this subject in all the principal countries. This report fills sixty-seven pages. It is followed by two very exhaustive papers on "Potable Waters" and their analysis—the one by M. van de Vyvere, and the other by MM. Blas and van

Melckebeke. These subjects had a special interest at Brussels, and occupied a large part of the time of the Congress. Anyone wishing either subject will find these treatises of great value, though it must be remembered that they are only published in French.

M. de Nobele's valuable review of Pharmaceutical Education all over the world follows, and we have last in this section the project of the International Pharmacopœia as drawn up by M. von Waldheim.

The next section gives pleasant histories of the numerous and splendid banquets, fêtes and excursions which contributed such brilliancy and liveliness to the meeting. The way they wind up a dinner at Brussels is indicated in the sentence which concludes the report of the banquet at the Bourse: "After emptying a few final glasses to the health of friends and colleagues, the 'company separated about half-past ten, to distribute themselves in the cafés of the city."

The fifth section of the work gives a verbatim report of the proceedings of the general assemblies at which the subjects of the adulteration of foods, potable waters, pharmaceutical education, and the International Pharmacopœia were discussed by the whole Congress. At the final General Assembly the votes passed at the sectional meetings of the Congress were brought forward and endorsed or modified by the Congress as a body.

Then follow the reports of the four sections into which the Congress was divided. These are given more concisely, as they were drawn up by the several secretaries. The papers submitted to the Congress, most of which were given in abstract in our lengthy report of the discussions published in September, 1885, are added as "annexes," and the whole is wound up with very complete indexes.

The proceedings of the Congress and the very large amount of valuable work which it called forth are most faithfully represented in this remarkable volume, and M. van de Vyvere, on whom the labour of editing the whole has fallen, has in this worthily crowned the splendid services he rendered in the organisation and conduct of the very serious undertaking which he had so earnestly advocated. To him and to the president, M. van Bastelaer, the success of the whole was largely due. It was generally felt, and this volume makes it all the more apparent, that there was some lack of "international" character about the Congress; but this is not so manifest on the Continent as here, the French language having been for centuries the recognised medium for communication between different countries. Allowing for the defect, however, if it was one, the gathering was without doubt the most remarkable in all its surroundings and associations which pharmacy has ever seen, and its record in these 1,300 pages will always be of the highest interest. The volume, we believe, is to be bought at 12 francs unbound or 14 francs bound.

Practical Guide to Photography. By Marion & Co. London: Marion & Co., 23 Soho Square, W. 1886. Crown 8vo. Pp. 237, and catalogue. Price 2s. 6d.

THIS is a revised edition of a work which has been of great use to amateur photographers. In twenty-six well-arranged chapters it tells all about the origin of photography and its gradual development into a fine art. Consequently, it contains all that is useful to know regarding how to take a photograph, how to develop and finish it; the instruments and accessories used in photography; the chemicals and their combination in proper proportions for use in the dark room, and many other practical notes and hints. To the beginner the information is of the best kind, and to the retailer, who is called upon to supply photographic chemicals and scientific information at the same time, the book is one which can be recommended for the supplementary book-shelf in the pharmacy.

Diseases and their Commencement. By Donald W. Charles Hood, M.D., Cantab. London: J. & A. Churchill, 11 New Burlington Street. 1886. Crown 8vo. Pp. 138. Price 2s. 6d.

THIS consists of a series of five lectures delivered to trained nurses at the West London Hospital two years ago. The

object of the author is to convey to his readers what is most important of the more intelligible physiological facts relating to disease, and to impart such knowledge as may assist nurses and others "until the doctor comes." Although specially addressed to trained nurses, and therefore bringing into prominence the proper performance of the duties which fall to them—such as the best way to take the temperature of the body; of applying a poultice, airing the sick-room, &c., the book is properly what it is entitled, an account of the symptoms which mark the commencement of disease. For example, the first chapters are largely devoted to a lucid description of "inflammation," the more observable form of external abscess being taken as the typical example, and the author succeeds in carrying throughout the advice given thereupon to more serious forms of inflammatory affections. The information given is of a very common-sense nature, and is certain to come in useful, especially at the present time, when there appears to be a craze amongst the public to "doctor" themselves. Symptoms are generally mysterious manifestations of something gone wrong organically; the natural inclination, as well as the not altogether extinct rule, is to treat these symptoms. Dr. Hood shows how erroneous and dangerous this habit is, and as he deprecates medication by unskilled persons, the book is one which should prove safe in the hands of the householder. It is sold at a moderate price, is attractive in appearance, and chemists might find it a profitable addition to their saleable stock.

COMPANIES.

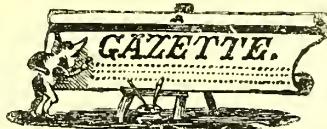
THE YORKSHIRE MINERAL WATERS MANUFACTURERS' ASSOCIATION (LIMITED); registered on September 28, 1886, as a company limited by guarantee and not having a capital divided into shares. The objects of the company are to raise funds in order to provide for the protection of the trademarks of the members, and to organise and carry into effect a system of collection, sorting, and storage of bottles; restoring lost, stolen, or misplaced bottles, &c., to their owners; also to purchase any property and erect any buildings or machinery required by the association; to prosecute offenders; to become a centre of useful information; and generally to look after the interests of the trade. Each member's liability is limited to 2*l.* The first subscribers are C. B. Inman, Hunslet, Leeds; B. Shaw, Huddersfield; W. Hendry, Heemondwike; C. H. Appleyard, Mirfield; J. W. Firth, Bradford; L. Moore, Shipley; and F. Tinker, Huddersfield; all mineral-water manufacturers. The association is declared to consist of 300 members, and is to be governed by a council of 20 members. The first secretary is William Tooke, Wintoun Street, Leeds.

THE CEYLON PURE PRODUCE COMPANY; registered October 4, 1886, to carry on the business of importers of tea, coffee, and other produce and merchandise from Ceylon or elsewhere. Capital, 20,000*l.*, in 5*l.* shares. Office, 13 Great Tower Street, London. First subscribers: J. M. Robertson, merchant, New University Club; J. Hamilton, merchant, 12 Great Tower Street; C. J. Scott, merchant, Guildford; J. H. Roberts, broker, 12 Great Tower Street; C. W. Baker, merchant, 39 Eastcheap; F. G. A. Lane, gentleman, Oxford and Cambridge Club; G. S. Peard, Secretary, 39 Lombard Street.

THE directors of Price's Patent Candle Company (Limited) report a profit of 22,701*l.* for the half-year to June 30. A dividend of 8*s.* per share has been declared, leaving 8,593*l.* to carry forward.

THE directors of Jeyes's Sanitary Compounds Company (Limited) have declared an interim dividend, at the rate of 6 per cent. per annum up to June 30 last, for the seven months then expired since the reconstruction of the company.

DR. J. L. THRESH, senior hon. secretary of the British Pharmaceutical Conference, has passed the intermediate examinations for the M.B. degree of the Victoria University, in the first division, and with distinction in anatomy.



PARTNERSHIPS DISSOLVED.

CLARE & HUNT, Scarborough, chemists and druggists.

DRINKWATER & FOSTER, Bickerstaffe, surgeons and apothecaries.

FOOTE & HODSON, Liverpool, mineral and aerated water manufacturers.

PRITCHETT & CARTER, Rastriek and Brighouse, Yorkshire, surgeons.

ROUSE & SMITH, Bideford, surgeons.

FIRST MEETING.

EDGE, WILLIAM RICHARD, Salford, medical plaster manufacturer. Oct. 15.
Official Receiver's Office, Manchester.

ADJUDICATION.

ROBERTS, THOMAS, Holyhead and Brynsiencyn, Llanidan, Anglesey, chemist.

SCOTTISH BANKRUPT.

PETITION UNDER CESSIO ACTS.

JOHN LITTLEWOOD AERATED MINERAL WATER COMPANY, 49 William Street, Anderston, Glasgow, to be examined in chambers of Mr. Sheriff Balfour, County Buildings, Glasgow, November 9, at 10 o'clock.

BANKRUPTCY REPORTS.

A. G. BURTON, Lichfield.

A MEETING of the creditors of Alfred Goodridge Burton, formerly of Lodge Road, West Bromwich, assistant analyst, and now aerated water manufacturer, carrying on business at Baker's Lane, Lichfield, was held on October 4 at the Oldbury County Court, before Mr. C. Woollett, chief clerk to Mr. L. J. Sharp, Official Receiver. The statement of affairs showed total liabilities, 476*l.* 15*s.* 9*d.*; net assets, 280*l.* 9*s.* 5*d.*, leaving a deficiency of 196*l.* 6*s.* 4*d.* The report of the Official Receiver stated that the bankrupt arranged to purchase the business now carried on by him from a Mr. J. J. Perkins on July 5 last. He paid the sum of 400*l.* for the stock and fixtures, goodwill, &c.; 380*l.* he borrowed from his brother-in-law, Mr. W. A. Sharp, and gave a bill for the balance. Subsequently the bankrupt came up for his public examination before Mr. G. S. Watson, Registrar. Mr. Woollett explained that the creditors in this estate would receive 20*s.* in the 1*l.* The Registrar: Why is this a bankruptcy if the estate can pay 20*s.* in the 1*l.*? Mr. Woollett replied that the debtor had only been in business two months, and he started by borrowing 380*l.* from his brother-in-law. That brother-in-law had reduced his claim by 150*l.*, so as to enable the whole of the creditors to receive 20*s.* in the 1*l.* The Registrar: It is very liberal of the brother-in-law to do so. The debtor, after answering a few formal questions, was allowed to pass.

Re WILLIAM KENNEDY FERGUSON & THOMAS WILKINSON WETHERELL, 35 Great George Street, Chemists and Druggists, and Electro-platers, Leeds.

THE statement of affairs in this matter is as follows:—Liabilities.—To unsecured creditors, 763*l.* 14*s.* 6*d.*; to preferential creditors, 43*l.* 4*s.* 10*d.*; less 36*l.* 4*s.* 8*d.*, to be deducted contra; leaving 7*l.* 0*s.* 2*d.* to rank for dividend; total, 770*l.* 14*s.* 8*d.* Assets.—By stock-in-trade, cost 500*l.*, estimated to produce 200*l.*; book debts, good, 92*l.* 13*s.*; doubtful, 13*l.* 8*s.* 4*d.*; bad, 18*l.* 10*s.* 4*d.*; total, 31*l.* 18*s.* 8*d.*, estimated to produce 5*l.* Cash handed to the Official Receiver, 3*l.* 13*s.* 8*d.*; cash handed to Messrs. Oliver & Appleton, 22*l.* 19*s.* 3*d.*; other property estimated to produce 250*l.*; total, 574*l.* 5*s.* 11*d.*, less preferential creditors for rent, rates, taxes, and wages, payable in full, 36*l.* 4*s.* 8*d.* leaving net assets 538*l.* 1*s.* 3*d.*, and showing a deficiency of

232*l.* 13*s.* 5*d.* The following is a list of the principal creditors:—

Unsecured.

		£ s. d.
1.	Chemists' Aerated and Mineral Waters Association (Limited), Starbeck	13 18 8
2.	Carlyle, W. A., Birmingham	23 4 3
3.	Beckett & Co., Leeds	96 5 4
4.	Cresswell Bros., London, W.C.	10 5 5
5.	Canning, W., & Co., Birmingham	15 18 11
6.	Evans, Sons & Co., Liverpool	17 10 2
7.	Echo, the Proprietors of, London	23 5 0
8.	Ford & Warren, Leeds	17 2 10
9.	Gilbey, W. & A., London	6 18 0
10.	Goodall, Backhouse & Co., Leeds	14 0 0
11.	Gillman, James, & Co., Leeds	35 0 0
12.	Herrings & Co., London	19 11 11
13.	Leeds Corporation, Gas Department	12 16 1
14.	Spark, F. (The Express Office), Leeds	16 4 0
15.	Mercury Office, Leeds	14 13 4
16.	Maw, S., & Thompson, London	13 12 7
17.	Oldroyd, Edwin, Leeds	15 16 8
18.	Routh, John, & Co., Leeds	79 2 10
19.	Robinson & Sons, Chesterfield	11 0 0
20.	Yorkshire Post, Proprietors of, Leeds	14 19 3
21.	Sundry creditors under 10 <i>l.</i>	292 9 3
22.	Vevers, Robert L., Chapel Allerton	(Preferential) 17 10 0
23.	"	11 13 4
24.	Sundry creditors ..	14 1 6

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade-marks to be addressed to H. Reader Lack, Esq., Comptroller-General of Patents, Designs, and Trade-marks, Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

From the "Trade Marks Journal," October 13, 1886.

"DR. WILLIAM PRICE'S SILURIAN SALVE, OR THE ARCH DRUID'S REMEDY"; for a salve for human use. By Robert & Roderick Roberts, trading as The Prosser Drug Company, 13 Church Street, Camberwell, 51,559.

A design resembling a Maltese cross; for glass bottles. By The South Wales (Siemens's patent) Glass Manufacturing Company (Lim.), Crindau, Newport, Mon., 52,365.

"BORAX DRY SOAP," and medallions, on label; "Borax Dry Soap is the best," and medallions, on label; "Borax Extract of Soap," and medallions on label; "Patent Sponge and Brush Powder," other wording and figures, on label; "Household Dry Soap," and other wording, on label; "Borax Dry Soap," and medallions, on strap-shaped label; all for plain or perfumed saponaceous compounds in granulated or powder form (52,365-53,311). Picture of dead horse and rider; for chemicals substances used for agricultural, sanitary, and other purposes (53,300), and for substances used in food (53,301). A girl's head within a ruff, bearing word "Borax," and other wording; for antiseptics (53,356). "Boron Sanitary Powder," and other wording, on label; for a preparation for sanitary purposes (53,357). "Californian," and figure of crystals; for antiseptics, food preservatives, and perfumed detergents (54,655-57). By Jesse Ascough, Handsworth, Birmingham.

"CABUL SAUCE," also "Mogul Sauce," and other wording, on labels; for sauce. By Crosse & Blackwell, Soho Square, W.C. 54,951, 55,318.

Medallions, with word "Ber" and figure of a fish in centre, and other wording; for borax, loric acid, &c. Medallion, with figure of owl, &c., in centre; for chemical articles of Classes 1 and 2. By Knuheim & Co., 23 Linden Strasse, Berlin, Germany. 54,583-88.

"P. P. P.," within chain-links, and "The Ladies," within a border; for syringes and enemas. By Lawrence Bros., 48 Farrington Street, London. 54,990-91.

"TRIPLE CYLINDER OIL," and other wording; for hydro-carbon oil for lubricating cylinders, &c. By P. M. Crane & George Moir, trading as P. Moir, Crane & Co., Bank Street, Manchester. 55,375.

- "PAX VOEISCUM," and other wording, with figure of a dove on medallion; for infants' preservative. By Alfred Peace, 1 Victoria Square, Holmfirth. 55,424.
- "Q.Y.C." within a diamond; for various goods prepared from animal substances, including polishing paste, knife powder, &c. By D. Storer & Sons, 6 Billiter Avenue, E.C. £5,478.
- "FRUIT PILLS," and other wording and figure, on medallion; for pills for human use. By J. H. Parkinson, trading as The Fruit Pill Company, 323 Oxford Street, Manchester. 55,563.
- "THE DEAD SEA SALT," on ornamental label; for a medical preparation for human use. By F. R. Harris, Kimberley, Griqualand West, Cape of Good Hope. 55,659.

Obituary.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

FIELD.—On Sunday, October 10, Edmund Field, senior partner of J. C. & J. Field, Lambeth. Aged 55.

HAMILTON.—On October 10, at Warborough, Seabank Road, Liscard, George Hamilton, F.R.A.S., F.S.A., late Professor of Chemistry at Queen's College, Liverpool. Aged 73.

KEITH.—On October 11, at Newton Stewart, N.B., the wife of John Keith, chemist and druggist.

MOENS.—Mr. Johan Carel Bernelot Moens, the celebrated Dutch quinologist, died at Haarlem on October 2 after a short illness. Mr. Moens was born at Kralingen, near Rotterdam, in 1837, and studied pharmacy in Holland. At the age of twenty-one he left for Java, having been appointed pharmacist of the third class in the Dutch-Indian army. Mr. Moens rapidly advanced to the position of military pharmacist of the first class, and showed special proficiency in chemical studies. Shortly before 1866 he made the acquaintance of Mr. K. W. van Gorkom, then director of the Government cinchona plantations at Bandong, in Java, and soon found himself on terms of intimate friendship with that gentleman. About this time the discovery of *C. Ledgeriana* gave an extraordinary impetus to cinchona planting. The *Ledgeriana* bark, with its richness in alkaloids, gradually superseded most of the other cinchona varieties, the *officinalis* and the *succirubra* only being able to hold the field against it. It was found necessary to call in the aid of experienced chemists in order to perfect the cultivation of cinchona by showing how to obtain the largest possible percentage of alkaloids. Accordingly in 1872 Mr. Moens was appointed chemist to the Government cinchona plantations, and it was in this capacity that he created his reputation as a quinologist. The three principal discoveries in cinchona cultivation for which we are indebted to Mr. Moens are the propagation of cinchonas by grafting, the obtaining of bark by shaving, and the stripping of part of the tree, covering the naked parts with moss. This latter process was first practised by Mr. Maciver at Madras. Mr. Moens's researches have shown that the disease to which cinchonas are subject is caused by an insect, and rendered it possible to successfully combat the disease. In 1875 Mr. Moens was promoted to the directorship of the Government cinchona plantations, which post he filled unaided until 1879, when Mr. van Romunde, the present director, was appointed as his assistant. In 1880 Mr. Moens visited Ceylon, Madras, and Bengal, in order to report to his Government upon the condition of cinchona culture in those countries, and in 1883, after a quarter of a century's residence in India, he obtained leave of absence for two years, his health having broken down. He never returned to India, but was at his request relieved from his post under the Government and charged with the analysis of the Java barks imported into Holland. His work on "Cinchona Cultivation in Asia" contains a complete account of the introduction of the tree in the East Indies, and the progress of its cultivation. Mr. Moens's death is a severe loss to those interested in the Amsterdam cinchona market, for it was to a great extent owing to his talents and energy that that market has not long since succumbed to British competition.

PARKER.—Mr. John Spear Parker, of Western Bank, a promising young Sheffield chemist, died last week at the age

of thirty-six from typhoid fever. He had been articled to a local analyst, and afterwards held chemical appointments in the establishments of Messrs. Charles Cammell & Co. and the Phoenix Bessemer Company, now Messrs. Steel, Peech & Tozer, Rotherham.

SAPP.—On October 6, very suddenly, at Basingstoke, Arkas Sapp, chemist and druggist. Aged 40.

MARRIAGES.

INGLIS—WALLALIEU.—At the Wesleyan Chapel, Delph, (near Oldham), on September 16, by the Rev. E. J. Smith, (brother-in-law of the bridegroom), assisted by the Rev. R. Stevenson, W. K. Inglis, chemist, Delph, to Sarah Jane Whitehead (Jennie), only surviving daughter of Henry Wallalieu, Esq., J.P., of Bell House, Delph.

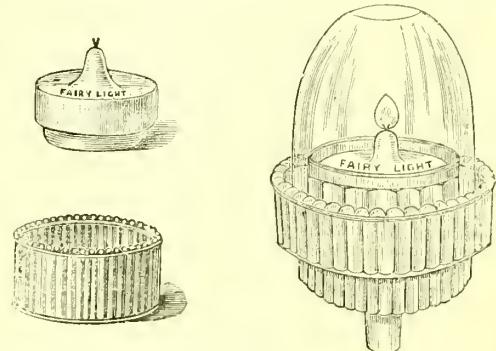
RUSTON—DYSON.—On September 22, at Christ Church, Ealing, W., by the Rev. Neville A. B. Borton, M.A., Vicar of Burwell, Cambridgeshire, Rev. Marmaduke Ernest Ruston, B.A., Assistant Priest, Burwell, third son of the late A. S. Ruston, J.P., Aylesby House, Chatteris, Cambridgeshire, to Constance Emily, second daughter of W. B. Dyson, of Ealing, and Gloucester Road, South Kensington.



FAIRY LIGHTS.

UNDER this name Mr. Samuel Clarke, of Child's Hill, recently introduced a novel modification of his well-known pyramidal night-light, for decorative and lighting purposes. In the first instance, the lights were combined with small "Fairy" lamps having opal glass shades, which combination had the effect of producing a steady and monotonous light equal to that of incandescent electric lamps of lower powers, and better than those in respect of mellowness. The idea was a success, and the inventor was not slow to develop it until every conceivable form and colour of lamp and shade has been brought into service.

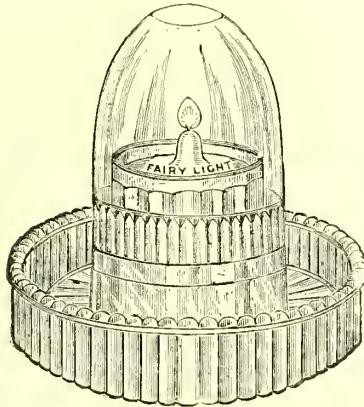
The "Fairy" light differs somewhat in shape and size from the pyramid light. It is about 2 inches in diameter, and is



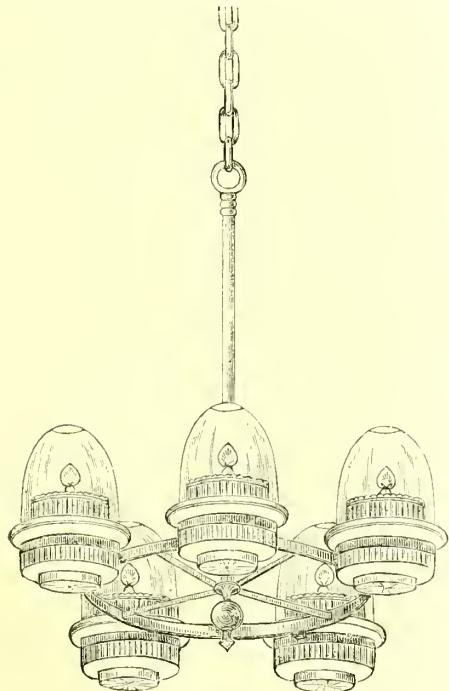
provided with two wicks; this arrangement gives a broader and shorter flame than a single wick, is smokeless, and burns with great steadiness and brilliancy to the end—ten hours being the period which each light lasts. In all the lamps each light is placed in a movable corrugated glass dish, into which each light exactly fits. The principal use of this dish is to impart a symmetrical appearance to the lamps, which it does effectually. This is seen in the above illustration of a lamp that may be fitted to wall-brackets, gas-pendants, &c., in a thoroughly secure manner. The action of the double wick is also well shown in

this figure. We may state in passing that a circular piece of mica is sent out with each lamp; this is the extinguisher, and it acts by simply placing it upon the top of the globe, thus excluding air.

The construction of lamps for table use is shown in the following figure of a "Flower Circle" lamp. The lower



vessel in this case is adapted for a flower-dish, and the effect of fresh flowers and the mellow light together is very pretty. These may be taken as elementary types of the lamps which were first introduced, colour and form in immense variety adding to the effect. But latterly great impetus has been



given to the use of the lights by the production of various pendants, in designing which the inventor has been assisted by M. Faustin. Those who attended the Botanic Society's Fête in July will remember how exceptionally good the illuminations were. On that occasion 12,000 of Mr. Clarke's lamps were brought into service, and were universally admired. The Society also awarded a special first-class gold medal to the "Fairy" garden lamps. They are now much used for illuminating conservatories.

There are so many patterns of the lamps, and so varied are the adaptations of colour and design, that only a perusal of the maker's illustrations can give a clear idea of them

Meanwhile we would point out that chemists should see that they are not outdone by others in the distribution of them to the public. Two or three of the coloured lamps placed upon the show-case have a brightening effect, and so placed speedily make sales.

Trade Notes.

THE business formerly carried on by the late Mr. Alfred Batty at 37 Mincing Lane has, by liquidation, ceased to exist.

MESSRS. DAVEY & SONS, chemists, 125 Union Street, East Stonchouse, have opened a branch business at 35 Wilton Street, Millbridge, Devonport.

MR. CHARLES MANGOLD, formerly manager to the late Mr. Batty, has commenced business as a chemical and drug broker at 37 Mincing Lane. The style of the new firm is Chas. Mangold & Co.

MR. R. C. TREATT, of Dunster House, Mincing Lane, E.C., has been appointed agent for Messrs. Ploehn & Hopf, of Leipzig, manufacturers of volatile oils, essences, and spice-extracts.

MR. H. A. NEAME, who has been well known for some years as manager for Mrs. Martin, of The Crescent, Lime Street, Liverpool, recently acquired the dispensing business lately carried on by Mr. George Ellis at 11 Everton Road, Birkdale, under the style of the "Birkdale Pharmacy."

MESSRS. MAY, ROBERTS & CO., druggists' sundriesmen and dealers in proprietary articles, have returned from Moor Lane to their former quarters at 9 Clerkenwell Road, E.C., which they had vacated during rebuilding after their fire. The new premises form part of one of those palatial blocks of warehouses which are gradually Hausmannising this part of London. The extensive premises occupied by Messrs. May, Roberts & Co. consist of a ground floor with two floors below and four above it. The ground floor is divided into offices and packing departments. On the upper basement, if it can be so designated, the stock of bottles and china pots is stored. An "Otto" gas-engine, of $2\frac{1}{2}$ -horse power, is fixed on the lower basement, and is at present used for working the large lift. In this lower basement heavy goods are received and unpacked. The insurance company have required Messrs. May, Roberts & Co. to construct, in a corner of the ground floor, a capacious bin for storing away the straw taken out of the cases. The first floor is exclusively devoted to proprietary articles, a branch of their business to which the firm now devote particular attention. The second floor is occupied by the glass department, and an imposing array of cheap feeding-bottles, all of Belgian manufacture, is stored on the third floor. The top floor of the premises it is proposed to turn into a laboratory for the preparation of specialities, such as ointments, cosmetics, and tooth-paste.

CARTER'S LITTLE LIVER PILLS are the subject of some excellently executed counter cards and pamphlets. A number of the cards are of the puzzle variety, while others are beautifully executed specimens of lithographic printing in gold and colours. The subjects are amusing and highly attractive, and well calculated to further the sale of the pills. Mr. J. Morgan Richards, 46 Holborn Viaduct, is the agent.

In noticing the new tooth-brush of Messrs. Oscar Sutton & Co., last week, their address was accidentally printed Boston, instead of Preston.

THE COLOUR OF HONEY.—Much of the dark-coloured honey now frequently seen in the market is quite equal (and in some cases superior) to that which is light in colour; honey collected by the bees from white clover, limes, fruit blossoms, sanfoin, hawthorn, turnip, bean, heather, &c., being of different hues. But even the best heather honey is a drug in the home market because of its dark colour, the public preferring jars containing a bright mixture of glucose, &c., made pleasant to the eye by the aid of sulphuric acid and other most injurious substances. — *English Labourers' Chronicle.*

Trade Report.

It should always be remembered that prices quoted in this section are as nearly as can be ascertained the lowest that are actually paid for bulk quantities. Considerable allowances have to be added in many cases before ordinary prices can be ascertained, and for many drugs it must be recollect that the range of quality is very wide.

MINCING LANE, October 14.

NOTHING striking occurred at the public sales of this date, nor is there any noteworthy change in prices of drugs or chemicals to be recorded. There has been a slight scare, as noted below, in regard to gum arabic, in consequence of a report that a considerable quantity was found in Tamai when that place was captured a few days since. Quicksilver seems to be tending higher. Californian honey of the new season's crop has arrived in superabundant quantity, and sells at low rates. Citric acid is again declining. Shellac is rather higher, in sympathy with the improvement in the value of the rupee. Heavy chemicals seem firm, and there is a general impression that trade is going to improve, though the development is rather in anticipation than in actual progress.

ACID (CITRIC) has declined in value, 1s. 11½d. having been accepted for spot stuff.

ACID (TARTARIC), on the other hand, is very firm. English is quoted at 1s. 6¾d., and foreign at 1s. 6½d. per lb.

ALKANET ROOT.—Fourteen bales of good quality, which have been frequently offered, were again taken out.

ALOES.—About 140 boxes *Cape* aloes were offered, including a considerable proportion of very good bright hard quality, but there was no animation on the part of buyers, and prices declined 2s. to 2s. 6d. per cwt. What was sold fetched 28s. 6d. to 27s. 6d. for fine to good hard, 26s. to 20s. for fair partly drossy to ordinary soft, and down to 8s. for very low quality. *Curaçao* aloes are offered in abundance, the lower grades being, in fact, unsaleable. On the other hand *Zanzibar* Socotrines are in good demand, and sold at an advance of from 15s. to 20s. per cwt., viz. 120s. to 102s. 6d. for fairly good to fair, and 90s. to 60s. for ordinary, all in tins.

ARAROBA.—Ten cases were offered in drug sale this day. This araroba was very dusty, and of a dull brown colour. Offers were made from 3s. 6d. to 3s. 9d. per lb., but the parcel was bought in at 5s. per lb.

BALSAMS.—Good Maranham *Copaiba* is held at 1s. 5d. per lb., but the article remains neglected. *Peru* remains flat. Hamburg advices describe the position of the article on that market as very dull, and state that a further decline in price may be looked for, the production being greatly in excess of the requirements.

BUCHU LEAVES.—Fourteen bales were offered in sale. Fair round leaves sold at an advance, viz. 3d. to 3½d. per lb., while 6d. was refused for a parcel of long narrow leaves containing a good proportion of the small white flowers of the shrub, and described as "externally stained."

CALABAR BEANS.—Six bales bought in at 10d. per lb.

CALUMBA ROOT plentiful, and difficult of sale. Forty bags dull and dusty root were sold without reserve at 17s. per cwt.

CAMPHOR.—A parcel of freshly landed *Japan*, good quality, is held at 68s. per cwt. for not less than 50 tubs.

CANELLA ALBA remains quite neglected; a few sales of broken and sea-damaged quill, at 18s. to 21s. 6d. per cwt., excepted.

CANTHARIDES.—7s. 3d. has been refused for good *Russian* flies of the new crop.

CARDAMOMS.—The total quantity offered in the drug sales amounted to 130 packages. There was a very limited competition and prices show a decline. 1s. 10d. per lb. was paid for good smooth small to bold pale plump *Ceylon-Malabar*; 1s. 7d. to 1s. 9d. for fair long small to medium plump ditto; and 10d. per lb. for very small pods.

CHAMOMILES.—Over 80 bales of medium and small buff-coloured flowers were bought in at 20s. per cwt., but a good deal less would probably be accepted.

CINCHONA BARK.—A fair quantity of *Crown* and other South American barks was sold. Genuine *Lixa* is very scarce. Four bales *East Indian* cinchona, very fine silvery mossed quills, from the Nilgiri hills, were bought in at 1s. 6d. per lb.

CITRONS IN SALT.—One pipe sold at 6l. 12s. 6d.

CIVET is now held at 5s. 9d. per oz. for good quality.

COLOCYNTH.—We noticed three cases of sàrivelled *Spanish* apples, presenting the appearance of having dropped from the tree in immature condition, and full of seed. An offer of 3d. per lb. was refused for this lot.

CONCENTRATED LEMON JUICE has fallen down to 26l. per pipe f.o.b. Messina, and to 23l. forward (January-March). Large holders would not sell at above prices. We hear from Messina that the very trifling demand for prompt has been easily met by small holders at daily reducing prices; the approach of the new production has discouraged the big holders, who would willingly clear off their stock. Forward is dull with but few buyers, and that only at very low prices, as the article may be greatly influenced by the pressed sale of the old stock.

CUBEBS.—Several parcels were shown, including one or two lots of very doubtful quality, but no sales were effected.

CUTCH.—The market is very firm with a hardening tendency. *MM* in slabs, first quality 28s. 6d., second quality 27s. 6d.; of *W two stars* there is nothing to be had at present. *RS* in good slabs quoted at 26s. Cutch in block is dearer just now than the slabs. We quote *Star B* at 29s. 6d. to 30s. *Eagle* and *Cock* at 28s., *Bull* at 27s. 6d. per cwt.

ERGOT OF RYE.—A few lots of fine new *Spanish* ergot were sold at 1s. 1d. per lb., and more is left at that price. 3d. per lb. was paid for old wormy stuff.

GAMBIER.—The market is weak, and block on the spot quoted at 22s. per cwt.

GUM ARABIC.—Telegrams have been received from Cairo reporting the capture at Tamai of large quantities of gum, and, although these reports have been contradicted, and are, by competent authorities, believed to be greatly exaggerated, they have certainly had the effect of rendering holders more willing to meet the market. A few bales fine *Turkey Sorts* have been sold at 10l. 5s., and 10 bales ordinary quality at 9l. 10s. *Senegal Gum*.—About 50 bags *Bas du Fleuve* sold 6l. 5s. to 6l. 10s. *Galam*, dull; 6l. 2s. 6d. is the present quotation.

GUM BENJAMIN.—There was a very good show of *Siam* gum, but this variety met with no attention at prices asked, and the whole was bought in, fine bright firsts, in blocked almonds at 35l.; good seconds at 24l., and thirds at 15l. to 12l. per cwt. *Sumatra*, fair seconds, about one-fifth false packed, sold at 11l., thirds at 8l. 10s.

DRAGON'S BLOOD.—Only two cases seedy cake of fairly bright colour sold at 7l. 5s. per cwt.

GAMBOGE in limited supply, and selling steadily at about 5s. advance. Good yellow pipe, slightly blocky, sells at 10l. 10s., fair at 9l. 15s., and ordinary dull pipe at 9l. per cwt.

GUAIACUM.—A few lots sold at previous rates, but the bulk was bought in.

GUM KOWRIE.—During the year 1885 the imports of this gum were greatly in excess of the demand, and at the beginning of the present year the stock in public warehouse at this port had grown to over 2,200 tons. Since then the arrivals have diminished, and the deliveries have been considerably above the average; so that at the end of last month our stock had again been reduced to 992 tons, against 2,002 tons at the corresponding period of 1885. Advertising to a parcel of Kowrie gum offered in the London drug sales a few months ago, and imported from Cooktown, in Australia, the sub-collector of customs at Cooktown writes that the gum or resin in question came from the south-eastern portion of British Guinea and the adjacent islands,

where it is said to be found in dry creeks. There seems, however, to be a certain amount of reticence on the part of Australian shippers. We hope shortly to be able to give fuller particulars concerning the collection of this gum in New Guinea.

GUM MYRRH shows a slightly easier market, with sales of fair palish *Aden* sorts at 98s., darker ditto at 87s., and dull pickings at 52s. 6d. per cwt. We noticed 25 bales of opaque *Bdellium*, which were withdrawn without price.

GUM TRAGACANTH.—Fine white *Syrian* flakes held at 10*l.* per cwt.

HEAVY CHEMICALS.—The general tone of the market is firm at last week's quotations.

HONEY.—Nearly 1,000 cases of the new *Californian* crop were offered in sale to-day. The greater part was sold at the following rates:—Fine white, 29s.; good pale candied, 26s.; yellowish, 24s. to 23s.; buff, 20s.; amber, 18s. 6d.; and brown from 14s. 6d. The arrivals of the *Californian* crop considerably exceed the requirements, and there seems no prospect of any speedy improvement in price.

IODIDE OF POTASSIUM.—Six 10-lb. jars of *Atkinson's* brand bought in at 8s. per lb.

IODOFORM.—One jar *Atkinson's* bought in at 10s. per lb.

IPECACUANHA is about 2*d.* per lb. dearer, 3*s. 3d.* per lb. being paid for fair annulated, partly wiry root. Four small bags (about 52 lbs. in all) of the *Ionidium ipecacuanha* (*N. O. Violaceæ*) were offered for sale but withdrawn. This root is a native of the south-eastern provinces of Brazil, where it grows mainly along the coast, and is known to the natives by the name of *Poaya* brancha. At the end of 1884 a parcel appeared in the drug sales, and full particulars of the root were given in THE CHEMIST AND DRUGGIST of January 15, 1885. The root possesses no emetic properties whatever. It is sometimes called "Trinidad ipecacuanha" by London druggists.

JUNIPER BERRIES.—Advices from Italy state that many transactions have lately been made there at full prices for speculative purposes. Price in Italy, 7*s. 9d.* per cwt.

LAUREL LEAVES are quiet in Italy; dry green in pressed bales are quoted there at 12*s. 6d.* per cwt.

MUSK.—Good first pile *Touquin* pods have advanced about 2*s.* to 2*s. 6d.* per oz., and sold at 7*l. 6d.* per oz. Good to ordinary third pile is worth from 18*s.* to 33*s.* per oz. There are no really fine first pile pods offering at present. *Yunnan* pods sell at 44*s. 6d.* to 45*s. 6d.* per oz., while *Cabardine* is held at 15*s.* per oz. A compound catalogued as "grain musk" was sold at 12*s.* per oz., greatly above its real value.

OILS (ESSENTIAL).—In French essential oils very little is doing at present, and no movement is likely to occur until about the latter half of next month. Italian oils are steady. *Bergamot*, firm at from 6*s.* to 7*s. 6d.* *Cinnamon* quiet. In sale 5 cases were all bought in above value. Really good oil is worth about 3*s.* per oz. *Cinnamon-leaf* oil is dull; 2*d.* per oz. has been paid privately, but in public sale to-day this figure was not obtainable. In *Citronella* business to the extent of 100 cases at 1*l. 6d.* per oz., and retail lots at 3*l. 6d.* is reported. New arrivals have just come to hand. *Clove Oil.*—Some highly-coloured stuff was shown, but bought in at 3*s. 6d.* to 4*s. 6d.* per lb. One case *Cucus* oil bought in above value, 8*s.* per lb. would probably be accepted. *Geranium* is quoted at 3*s. 3d.* to 5*s. 8d.* per oz., the former price being for "Géranium de Nice," the latter for "Géranium sur Roses." Algerian geranium is worth 22*s.* per lb.

Lavender.—Good to fine French oil is now held at 4*s.* to 6*s.* per lb. *Lemon* steadier. Sales have been made at 5*s. 6d.* to 6*s. 9d.* per lb., according to quality. Of *Lemon-grass* 5 cases were sold at 1*l. 3d.* per oz. A parcel of 4 cases West Indian oil of *Limes*, water white, sold at 4*s. 6d.* per lb. The *Neroli* crop has been short, and prices are tending higher; Bigarade from 14*s. 6d.* to 19*s. 3d.* per oz., the lower quotation being for oil from the petals. *Otto of Roses* is very firm at 25*s. 6d.* per oz. for virgin oil in quantity. There is at present little going on in the article. We hear only of transactions to the extent of some 300 oz. during the last few days. Owing to the disturbed condition of affairs in Bulgaria, and fearing that a possible occupation of the country by the Russians might be attended

with some risk to their merchandise, the principal holders of *otto* are said to have quitted Bulgaria, taking their stock with them. Thus, within the last few days three *otto* merchants, carrying between 5,000 and 7,000 oz., have arrived at Vienna, and another holder is expected in London with some 2,000 oz. *Orange*, 6*s. 9d.* to 8*s. 6d.* per lb. *Origani*, in limited supply at 1*s. 5d.* to 3*s. 10d.*, according to quality. *Rosemary "sur fleurs,"* held at 1*s. 8d.* to 2*s. 6d.* per lb., according to quality. This oil is likely to go dearer in consequence of large transactions that have taken place recently, and which may affect the market.

OILS (FIXED).—*Castor* very firm. Holders ask more money. *KB 1* bought in at 4*l. 1d.* per lb. *Cod-liver* remains cheap and neglected.

ORANGE PEEL.—Some rather dark gelatine cut *Malta* sold at 9*s.* per lb.

ORRIS ROOT.—The Italian crop has been scarce, and the tendency is towards a rise. The Italian price is 23*s. 6d.* to 27*s.* for *Florentine*, and 13*s.* to 15*s. 6d.* for *Veronese*.

PAREIRA BRAVA.—Twenty packets spurious root of old import (1884) were again offered, and encountered a bid of 24*s.* per cwt., but, strange to say, this was not thought sufficient. The parcel in question consists of two varieties of root, viz., the *Cissampelos pareira*, from South America, and a knotty and contorted root, of which the origin is unknown. This parcel bears a remarkable resemblance to that lately described by Mr. Kinkby (see THE CHEMIST AND DRUGGIST of September 11). For medicinal purposes the root is valueless.

QUICKSILVER.—Decidedly firmer all through the week, and standing now at 7*l. 7s. 6d.* in second hands. It is not believed that the new quicksilver mines in Queensland will seriously affect this market, certainly not for a long time to come.

RHUBARB.—The large quantity offered in drug sale included but very few chests of good root, by far the greater part being old and wormy stuff. A fair proportion was sold at low rates, viz. *Shensi*, round, good pinky fracture, small druggist's root, 1*s. 10d.*; ditto, very dull and wormy, from 9*s. 6d.* per lb. downwards. *Canton*, of fresh import, unsorted root, fine yellow coat, 1*s. 1d.* per lb.; *High-dried* good pinky fracture, 1*s. 1d.*; low wormy, 4*d.* to 3*d.* per lb.

ANISEED.—A fair business is doing in new crop seed, and the low prices now ruling, 27*s.* for *Russian* and 50*s.* for *Allicant*, deserve attention.

ANNATTO.—Forty baskets dark and soft *Pará roll* bought in at 1*s. 4d.* per lb. *Seed* sold at steady rates; 4*d.* per lb. for good bright Java, and 3*l. 6d.* to 4*d.* for ditto Ceylon..

CANARY SEED.—The market is very quiet, and an artificial scarcity, brought about by holders of Turkish seed, has not been instrumental in driving prices up. *Barbary* and *Spanish* seed are both well supplied at present, and selling at 50*s.* to 52*s.* for the former, and 60*s.* the latter, per 464 lbs. ex warehouse. Of Turkish seed some 3,000 to 4,000 bags arrived during the fortnight in Liverpool, of which the greatest part went to store for want of buyers. In London no new Turkish seed has arrived yet, but some considerable quantity is expected loading now. *La Plata* is quoted at 47*s.*; *Sicilian* at 58*s.*; and *Turkish* at 45*s.* to 46*s.* per 464 lbs. for ordinary, and 47*s.* to 49*s.* for finest quality.

CARAWAY SEED.—Very quiet, with large arrivals and accumulating stock. Best *Dutch* seed is worth 33*s. 6d.* per cwt. ex warehouse.

CROTON SEED.—Of 31 packages offered, the greater part sold at easy rates, 35*s.* for good sound, and 28*s.* for dark.

CUMINSEED.—*Malta* 48*s.*, *Morocco* 24*s.* to 25*s.* per cwt. ex warehouse.

FENNEL SEED steady, and in growing demand.

FENUGREEK very firm, at 8*l. 10s.* per ton for *Mogador*. The stock here is exceedingly small.

LINSEED rules quiet but firm. *Bombay* 43*s. 6d.*, *Ca'cutta* 40*s.* per 416 lbs. *Dutch* seed does not meet with much favour this year, being mostly damaged; its value is 49*s.* to 50*s.* *Sicilian* firm, at 50*s.* per 424 lbs. *Russian* seed 40*s.*

MUSTARDSEED.—*White* is in fair demand at last rates. *Foreign*, more offering, 9s. to 11s. per bushel; *English Brown*, 12s. to 13s. per bushel; *Brown Bombay*, steady, at 5s. to 6s. per bushel.

QUINCE SEED.—Four bags seed embedded in the fruit pulp sold at 11½d. per lb., after good competition commencing from 2d. per lb.

RAPESEED.—There has been a fair export demand, but the home trade keeps very quiet. *French* is dearer at 43s., *Dutch* 47s. per 424 lbs. ex warehouse.

SENEGA Root.—Good bright but rather chumpy root is held at 1s. 11d. per lb.

SENNA.—About 100 packages *Tinnerelly* were offered, the greater part selling at very steady rates, from 9d. for good sound green leaves, to 1½d. for ordinary damaged ditto. Two bales *Cassia obovata* leaves, a variety not frequently met with, were among the lots sold. This variety is found in Arabia, in Africa, from Egypt southward, in the Soudan, Abyssinia, South Africa and westward to Tripoli and the Senegal. The leaf is cultivated, and has been naturalised in Jamaica.

SHELLAC.—In public sale 814 chests met a steady demand, and about 400 chests sold, part without reserve, at full rates for common Second to 2s. advance on First Orange. Button lac is easier. We quote First Orange, ASSL unworked Calcutta weights, fine, 74s.; ditto, H in diamond, 70s. Second Orange, HB octagon, good, 54s.; GA diamond, good, rather out of condition, 53s. to 54s.; G diamond, fair, 51s. to 52s.; livery, 50s. to 51s.; AP diamond, fair, 51s.; RG diamond, blocky, unworked, Calcutta terms, 48s. to 49s.; garnet AC, 52s. Button, RBBL 1, small but good second, 59s. Calcutta advices under date of September 21 say that the London demand for shellac continues slack, but a large business has been done by speculators, and for America at advanced prices. Button lac is quiet, buyers not ready to work at higher quotations, and stocks are increasing.

SULPHATE OF QUININE is steady, but quiet. *Howard's*, in bottles, 2s. 6d. per oz.; *Pelletier's*, 2s. 4d. per oz.; *German*, in bulk, 2s. per oz.; 100 oz. *Whiffin's* mark, in tins, unbleached, sold at 1s. 10d. per oz.

TURMERIC.—Of 630 bags *Madras* 488 bags sold, bright medium to bold finger 12s., one lot 12s. 3d., lean ditto 11s. 6d., large whole bulbs 10s. 9d. to 11s. 180 bags *Cochin* sold, split bulbs 7s. 6d. to 8s.

VANILLA.—144 tins were offered in the drug sales, the better qualities selling at very firm prices:—18s. for 6½ in. to 7½ in.; 16s. for 6½ in.; 13s. 6d. for 5½ in. to 7 in.; and 11s. 6d. for 5½ in. to 7 in.

THE AMERICAN MARKETS.

NEW YORK, October 1.

UNDER the influence of an active demand the drug trade continues to prosper. The inquiry is not confined to any particular part of the country, but appears to be general, and would indicate a continuance of the steady improvement that has been going on for the past two months.

The prices sterling (in parentheses) are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can, therefore, see at a glance the course of this market compared with their own.

BALSAMS.—*Copaiha* continues in active demand. Export enquiry for Maracaibo cannot be filled, as stock of this kind is exhausted. *Tolu* is again dearer, having to-day advanced to 36c. (1s. 7½d.).

CASCARA SAGRADA.—The stock in San Francisco having been reduced to 15 tons, this was taken off the market by large consumers in the home trade. Here stocks are light, and as the prices lately ruling would little more than pay carriage from the district where it is collected, higher rates may be looked for.

QUININE.—Without any speculative interest being developed, there is a very large demand. The market, however, remains dull and drooping; the general feeling tends towards

lower prices. Prime German brands sold this week at 47c. (2s.).

SPERMACETI.—The trade has been upset by free offerings at 43c. (1s. 10d.), and operators are naturally afraid to buy. The cause of the decline has not transpired.

COTTONSEED OIL.—Refined is quiet at the recent advance; new crop oil will arrive in about three weeks, and buyers as a rule prefer waiting. Prime summer refined is 42c. (27l. per ton); good, 35c. (23l.). Winter refined is scarce at 50c. (32l.). Most of the oil-mills in the south are now under the control of the American Cotton Oil Trust, a corporation which proposes to control this industry as the Standard Oil Company controls the petroleum trade.

CALIFORNIAN HONEY.—The crop in California is reported not to be nearly as large as was expected, but as it meets with no demand for exportation and little for home consumption, prices rule very low. From San Francisco reports come that, although sailors are loading for both Liverpool and London, shippers will not make consignments of honey. The price ruling there at present for white candied is equal to 22s. c.i.f. Liverpool by sailer. As what is described as "white" in San Francisco is often very much mixed, ranging from amber to pale, with some "white," the quotation would really be equal to 28s. for choice white, ranging down to 18s. for dark.

PEPPERMINT OIL.—Buyers still keep away and very little business is passing. Low offerings are still being made, and speculators have ceased purchasing in the country, of course with the object of scaring the farmers into accepting lower rates. The prices mentioned in last report are unchanged, but as there is no demand they are merely nominal.

HONDURAS SARSAPARILLA.—There has been an improved demand resulting in sales of about 100 bales for export. 60 Crown MC brand brought 33c. (1s. 8d.), a very low figure indeed; 25 Eagle and Snake, 27c. (1s. 3½d.), also very low. Good common brands in hide at 22c. (11½d.).

SERPENTARIA.—A parcel is offered "to arrive" at the low price of 35c. (1s. 9½d.).

SENEGA.—Large supplies of common *Manitoba* root are offering here at 36c. (1s. 9¾d.) without finding buyers. It is not suitable for the English trade.

CINCHONA IN BENGAL.—The report on the working of the cinchona plantations in Bengal during 1885-86 shows that there were upwards of five million trees in various stages of growth on these plantations. The major portion of these trees comprise the red and yellow species (*Succirubra* and *Calisaya Ledgeriana*). The most important feature of the year's operations was that the planting out was exclusively confined to yellow bark trees, of which 187,000 were of the hybrid variety, and 239,000 of *Ledgeriana*. The crop was not a large one, and amounted to 205,410 lbs. of dry bark, most of which was red. The bulk of the crop was as usual made over to the febrifuge factory, which turned out 4,743 lbs. during 1885-86, against 6,464 lbs. in the preceding season, the decrease being attributable to the competition of London-made febrifuge, of which 7,000 lbs. were still in stock at the three presidency depots when the report was issued, and also to the high price at which the febrifuge is sold by the Government, notwithstanding the fall in quinine and cinchona preparations. The cost of manufacture of febrifuge in Bengal was also more than in preceding years, owing to the introduction of an improved method of working the factory. So that, although the cost of manufacture increased by 5 annas per lb. in the case of ordinary, and 8 annas per lb. in the case of crystalline febrifuge, the percentage of febrifuge obtained from the bark was raised by 3 per cent. by the new method. The total expenditure on the Bengal plantations amounted to 79,728 rupees, which is 18,077r. below the budget allotment. The gross revenue derived from the sale of febrifuge, seed, plants, and bark amounted to 93,476r., against 124,225r. in the previous year. The actual profit on the year's working is stated to have amounted to 30,221r.; but with the expenditure at 79,728r., and the revenue at 93,476r., the net profit would amount to 13,648r. It is, therefore, not clear how the above figures are arrived at.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Shop Hours Regulation Bill.

The correspondence which reaches us on this subject is more than we can find room for with due regard to other subjects which we have to deal with. We have had to choose, therefore, between printing a few, or abbreviations of a good many letters. In taking the latter course we have done our best to fairly represent all views. Several other letters received late are necessarily held over.

Sir John Lubbock has expressed to us the pleasure with which he read the letters in our last issue in support of his Shop Hours Regulation Bill.

56/226.—*Curiosity* hopes the Bill will pass into law, and gives us his best thanks for taking up the subject. He remarks this paper is the only one in our line which does not look upon assistants as machines.

North Country Chemist (21/226) does not see how the Bill is to relieve the poor suffering assistants in the North of England. In the six different towns he has lived in hours were never longer than seven (excepting Saturdays, when they were nine or ten o'clock). An Act to enforce closing at 6 P.M. would be of some advantage. If stores can close at six, why not chemists?

One of the Slaves endorses the sentiments expressed by S. Collis and D. Walton. He sees no reason why a chemist's shop should be kept open later than other shops, and hopes chemists will take this opportunity of liberating themselves from slavery.

28/226. *Ephemera* writes in support of the Bill, and especially agrees with Mr. H. Robinson. He highly appreciates the philosophy expressed in that paragraph in Mr. Joseph Wilson's letter which commences by supposing that "Man's real object in life is happiness."

The other side has been so slenderly represented that we feel bound to print the subjoined able presentation of their case in full:—

SIR.—Having been for more than eight years a town traveller in the second city of the kingdom, I have heard most of the *pros* and *cons* of the early closing question, and may perhaps be allowed to think myself able to contribute something to the discussion of Sir John Lubbock's Bill. Let me say at the outset that I have no personal interest in the Bill. It would not affect me, except by compelling my neighbours to close when I do, and I am not disposed, as many of your correspondents appear to be, to translate my convenience into other people's duty. I may, however, confess to something like a feeling of shame at the prevailing

tone of the letters you have printed on this subject. "Save me from my friends!" is a prayer we all have to put up occasionally, but "Deliver us from our customers!" is to me, at least, a novel petition, and one which, when accompanied by a confession of our inability to help ourselves, is scarcely compatible with the dignity of the position we claim as Pharmacists (with a capital P, please). We have been taught to pity the poor dipsomaniac who cannot keep himself sober without joining a society pledged and badged (not to say *badgered*) to abstinence; but is not this clamour for an external restriction essentially as weak?

I know it has to be confessed that all internal efforts at early closing have been more or less failures. I remember three or four such in the city already referred to, in one of which I took an active part. The failures there were due partly, no doubt, to petty jealousies. Brown couldn't keep his promise because Jones wouldn't, nor Jones on account of Robinson. On one occasion I watched with much amusement from the "grateful shade" of one of Sir A. B. Walker's "corners," the manœuvres of two rivals on opposite sides of the street. Brown came first to his door to reconnoitre at about 9.5. Then Jones peeped out, and, seeing him, Brown fetched forth a shutter. Jones went and did likewise. Brown put up a second shutter. Jones ditto; and so at length, each waiting for the other, they got boxed up. It was about 9.30 ere the performance was over, I could not but suspect a little unwillingness on either's part, nor did I wonder at it, for the thoroughfare was still roaring with traffic, and times were none too prosperous.

The fact is, sir, that a closing hour that is suitable for one man and neighbourhood is not so for another. The real difficulty is in the poorer suburbs and low neighbourhoods generally, and (I may add for myself) in scattered agricultural districts. The father of the family is away from home all day; on arriving home at night he finds one of the youngsters ailing; the wife has waited for him to come (either unable to leave the house during his absence, or in doubt what to do for the best) before going to the "druggist" for some medicine. Of course we know she ought not to go to the druggist at all, nor he to serve her if she does; but they do it. Is the druggist to stay in after closing for such calls? He might as well be open, then, and so make it worth while to deprive himself of fresh air and recreation. Is he to neglect these late comers altogether? Then he loses his hold of his connection, for we may depend upon it that in these days of stores and cutters the only way for small men to live is to study the convenience of customers, to make themselves indispensable, if possible, by small services and odd jobs as occasion requires. Of course if a man can keep an assistant he may arrange to close at any hour and still attend to after-comers; but on the other hand he can in that case keep open late without making a slave either of himself or his "help." Or take the case of those whose shops are near the chief places of amusement. Their trade, if not strictly pharmaceutical, is quite legitimate, and at least as necessary as the tobacconist's. Why should it be stopped? The more we look into this question the more we see to "give us pause." Let young people and women be protected by all means, but men should be strong enough to make their own terms with circumstance in such a matter as this. There is no doubt but that Sir John Lubbock's Bill would be welcomed by a large section of the trade, but it would as certainly be obnoxious to many, and a real hardship to some. Those who would welcome it ought to be able to secure what they wish without it, and let the rest be free to do as they like. We are quite sufficiently legislated for already, and I for one prefer to see freedom, like charity, begin at home.

Yours, &c.,

C. C. BELL.

M. P. S. (Oldbury, 32/225) would hail a compulsory Act with pleasure. Granting, as "E.H.S." remarked, that "special cases of inconvenience would arise," *M. P. S.* replies:—"An alteration in any law will be sure to pinch someone's corn. When Bruce's law for the uniform and earlier closing of public-houses came into operation there was a great outcry against it. The publicans grumbled; they thought it interfered with the liberty of the subject, and of themselves in particular. Ask them now what they think. Ask the public if they would like to go back to old times. I venture to say their answer would be 'No.'"

William Gill (Nottingham), who professes himself a convert to the principle of the Bill, urges that it should be compulsory all over the kingdom; that it is a great mistake to suppose that the wants of the public cannot be supplied without shops being kept open till unearthly hours of the night. Mr. Gill shows by stating that when he took his business the hours were 8 A.M. to 10 P.M.; Saturdays to 11.30 P.M., and on duty all day Sunday. He first knocked off Sunday duty, then closed at 9 P.M., and shortly afterwards at 8.30 P.M. on week nights, and 11 on Saturdays, and his takings increased all the time, although not far away is a cutting chemist who is open till 10 P.M. every night, and till midnight on Saturday. He thinks the measure is one which would give chemists the chance of taking up their true position in social life.

SIR.—Thanking you for so promptly acceding to my desire to have the advantage and disadvantage of the Shop Hours Regulation Bill discussed by the trade in the pages of THE CHEMIST AND DRUGGIST, I now, in consequence of my opinions being imperfectly expressed, as misinterpreted by your correspondents, crave the permission to explain, if not sufficiently distinct; also to correct the correspondents who either reason from false data, or misquote from my letter in your issue of September 25.

The rules of logic assert that there are two abortive modes of reasoning, the one arguing falsely from true premisses, the other of reasoning correctly from erroneous data. Further, the mark of a powerful and gentlemanly letter is this fact—that the writer feels sufficiently strong in his position to be able to demonstrate and prove his convictions without indulging in personalities.

Mr. H. Robinson, of Baildon, writes in your issue of October 9: "If these two gentlemen had had time enough to shake their brains free from the muddling effects of incessant shop duties they would never have made some of the absurd statements they have done."

Mr. H. Robinson also writes, "he would like to ask Mr. Fitch to be a little more definite in his statements, for he is extremely vague in some of his assertions." He also asks, "In what way does the Bill favour the stores?" The Bill favours the stores in the suburban districts of London in this manner: Hackney, like many other suburbs, is the clerks', warehousemen's, and door-keepers' home. They are away all day in the City at their duties. They do not arrive home until evening, and then after a meal and a wash either go marketing with their wives, or one or the other of the couple minds the house while the other does the household buyings. Now, if the shops are shut by law at 8 P.M., the man will buy his requisites in the City before he comes home, so that although the same volume of trade will be done the bulk will be negotiated in another place, to the ruin of many suburban shopkeepers, as premised in a letter signed "A Suburban Chemist," in issue October 9.

Mr. Robinson misquotes and reasons correctly from false premisses when he states that I wrote (in my letter in the issue of September 25), "owing to so-called free-trade people are so poor that in case of sickness they call in the doctor instead of the chemist." My contention is clear in my previous letter, that people's income had become so limited that those who went to a physician and received a prescription which they took to a chemist to be dispensed now go to the local practitioner or the sixpenny dispensary, and I utterly deny that any such absurd passage can be found in my former letters, either stating or implying that they now call in the doctor instead of the chemist. Mr. Robinson also says "one effect of the Bill would be a saving to the shopkeepers in London alone of a large sum annually in gas." I can assure him that the Bill will have a contrary effect; the returns of the London gas companies would be reduced one-half, so that to make their industry a paying concern the directors would have to raise the rate considerably. I would draw your readers' attention to the fact that my premises are completely closed on Sundays and bank holidays, in conformity with the habit of the stores; and, therefore, Mr. Robinson's sneer goes for nothing when he writes: "Or has he been trading with their [the stores] customers after their closing time, and is he frightened of the Bill stopping it?"

That the Bill will limit trade is patent from this fact: publicans and tobacconists are left out, because its pro-

moters well know it would never pass the House of Commons if it diminished, as it undoubtedly would, the Government profits (revenues), and I ask the common sense of the world if it is not more reasonable to make the drug stores the exception, instead of the gaudy and enticing liquor-shop. Although I am severe on the abuse of public-houses, I may mention that it is no blind bigotry, for I am not an abstainer.

In your issue of October 9 one gentleman, W. M. Holmes, of Belgrave Mansions, S.W., proves the utter absurdity and impossibility of the Bill working by this admission: "There is one objection which must be provided for: it might happen that when the hour struck the boy was absent on an errand and the chemist too busy to put up the door shutters himself, and, as it is the custom of some people to leave everything to the very last minute, such an occurrence is likely to be pretty frequent." To this I say ditto.

Also in your issue of the 9th "A Suburban Chemist" very properly states:—"If the Act is passed, it should become operative everywhere, not being permissive." I can confirm his forecast by showing the working of the Act to close public-houses on Sundays at eleven o'clock P.M. within the district of the Metropolitan Board of Works, and one hour earlier in the rural districts. A portion of the Kingsland high-road is the boundary between the rural parish (now a town) of Hornsey and the metropolitan parish of Hackney. On the Hornsey side of the road the licensed houses, closing at ten o'clock P.M., as required by law, turn their customers out, of whom many merely cross the road and boose at those on the Hackney side until eleven o'clock P.M.

I also observe that most of the correspondence is from the provinces, where the occupations of the people are different, consequently trading done earlier.

With apology for the length of my letter,

I am, sir, yours obliged,

ROBERT OWEN FITCH

4/223. S. W. adds his unqualified support to the Bill, as it will save assistants from their masters, and masters from themselves and each other.

Robert G. Wilton, Runcorn, is much pleased to see the unanimity with reference to Sir J. Lubbock's Bill, and is hopeful that the boon long desired by many will not be allowed to slip.

12/223. An Assistant in a fashionable sea-side town, was very pleased to see that, among the letters published last week, only one was against Sir John Lubbock's Bill. He hopes "Suburban Chemist" will read carefully the other letters and profit by them.

223/25. A Twenty Years' Subscriber living in a manufacturing town in which, up to a few years ago, "the brethren dwelt together in unity." They met monthly, dined together annually, and were generally a very sociable lot. Their shops were then closed regularly at eight o'clock in the evening. Two or three fresh men, however, appeared in the town as purchasers of old-established businesses. These gentry soon turned the others wrong side up. They inserted notices in their windows that articles could be had within at "store prices," their shops were open until nine and even ten o'clock at night, and they opened on Sundays. A coolness sprang up, dissensions appeared, the Association dwindled away, monthly meetings and annual dinners are things of the past, and chemists' shops may be seen open at nine o'clock any night. This gentleman would like to revert to the old order of things, and for that reason supports compulsory closing at eight o'clock.

20/223. A Voice from the South (Brighton) is extremely glad to see that nearly all our correspondents are in favour of the Bill. He would not have troubled us with his endorsement of the general opinion if it were not the duty of everyone to speak up either for or against. His individual opinion is not, he says, worth much, but, if all thought of that, the framers of the measure would not have been able to judge from the trade what were their opinions on this important

matter, and would have concluded that chemists and druggists were apathetic.

72/227.—*Bank Holiday* (Liverpool) sees in early closing other benefits besides pecuniary ones, such as taking an active part in social movements, perhaps joining a harmonic society, an amateur dramatic club, a parliamentary debating society, or entering actively into municipal or parochial affairs. It is pleasant to find how heartily the provisions of the Bill are being accepted, and he, for one, is deeply grateful to Sir John Lubbock and the other promoters of the Bill.

58/227.—*N. J. C.* agrees as to the advisability of closing shops at a respectable hour, but claims that there are cases in which there must be some exception. Seaside resorts, for instance; it would be the height of folly to think of closing at eight o'clock during the short season in which seaside pharmacists and shopkeepers in general have to make their harvest. One way to get over this difficulty would be to grant "local option."

14/228.—*Euphorbium*, referring to our remark that unless the opposition shows up in considerable force it will appear that the ayes have it, says: "The opposition have nothing to fear; no such absurdity will pass through the Commons." Alluding to attempts to enforce the Lord's Day Observance Act, our correspondent says: "The *Daily Telegraph*, in an excellent leader, expressed surprise that hitherto no member of the House had moved its expunction from the statute-book; now a member, a baronet with various crotchetts, brings in a Bill to increase the penalty. What greater absurdity is possible?"

51/228. *P. W. G.* (Manchester) agrees with the Bill as regards chemists, but does not see why tobacconists and newsvendors should be excluded. If smokers forget to buy their luxuries before 8 P.M. they have only themselves to blame, and deserve to go without. And why should not newsvendors close also? This correspondent alludes to the case of a neighbouring chemist, who says he cannot close before nine o'clock, because he keeps a post office, although his last post closes at 8.15, and "*P. W. G.*" asks us to verify this, as he thinks the difficulty is one that is certainly worth seeing into.

49/228. *Oxon* protests against the Shop Hours Regulation Bill, not entirely on business grounds, but chiefly because it interferes with individual liberty, and restricts the time in which a man may work for his livelihood. Eight o'clock is too early in some neighbourhoods; nine would be a better time, if we are to have the Bill. He frequently does more business between 7 and 9 P.M. than at any other part of the day. *Oxon*'s other remarks on chemists selling tobacco do not apply, as the Bill provides that they would have to close like others.

E. Cullinan (Hammersmith) is favourable to the Bill in principle if it can be made workable in practice; but, as a pharmacist situated on the outskirts of London, he confirms the very sensible remarks made by "*Suburban Chemist*" in last issue. He thinks 8 P.M. too early, and that 9 P.M. would be much better. The amount of business generally done after 9 P.M. is comparatively small, whereas a very fair proportion is done between 8 and 9 P.M. The suburban districts of London are largely inhabited by City clerks and working-men, who, as a rule, do not get home from their work until 8 or 7 P.M., and consequently much of the business done comes in during the evening; and it appears rather hard on a man coming home at 7 P.M. to have only one hour in which to do local purchasing, while it will certainly drive this class of customers to buy next day at the stores. The conditions of business are not the same in Belgravia as in Hackney; in a small country place from which the inhabitants seldom travel, as in a large city where persons daily travel many miles from their homes to their work, and the Bill ought to be made more elastic to meet these differences.

50/228. *E. H. S.*, who claims to have enjoyed during the past fortnight the privilege of being the best-abused correspondent who has figured in the discussion of the Bill, writes at considerable length in reply to some of the criticisms on his letter. We hope we shall not treat him unfairly in abbreviating his remarks. First he says, "I must thank Sir John Lubbock for calling my attention to Clause 6, concerning which I confess I was, at the time of writing, ignorant. This clause will certainly, if workable, prevent one of the evils which I feared from the action of the Bill; but I cannot help thinking that the promoters have underrated the difficulty there would be in defining in a court of law what constitutes a tobacconist's or newsagent's business; and if exemptions are necessary in connection with those trades, I would suggest that additions be made to the schedule stating the exact articles which those tradesmen are to be permitted to sell after 8 P.M. I cannot agree with some correspondents in their desire to see all houses of refreshment closed, and let me express a hope that, should the Bill again be brought forward, some such word as 'vehicle' should be inserted in the clause defining the word 'shop,' to include those peripatetic purveyors who, already a great nuisance in the streets, would, I fear, be greatly increased in numbers should the Bill not be made to apply to them."

"Turning to the correspondence which has appeared in your columns, I regret that it has not been productive of more numerous expressions of opinion on the part of metropolitan members of the trade. At present opinions seem equally divided *pro* and *con.*, for the experience of our provincial brethren (interesting as the information conveyed in their letters may be, viewed in the light of a contribution to the history of our calling), even when derived from the conditions of the trade in a fine old city like Bath, or a, no doubt, go-ahead little village like Baildon, is perfectly valueless in considering the application of the provisions of this Bill to the pharmacies of a place of some 70 or 1,000 times their population, as in the case of London. Even Mr. Collis seems to have taken about half a century to convince himself of the expediency of early closing, and very possibly 8, or, for what I know, 6 P.M., may be a convenient hour for so doing in the provinces; in which case by all means let it be so arranged, as I should not think of dictating to him and others in matters of which I know nothing; but I do claim the power of being able to express a more valuable opinion than his on what is most suited to metropolitan trade: and this is the part of the subject to which my remarks were confined. It is amusing to see the avidity with which several of your correspondents exclaim against the cruelty to assistants entailed by the custom of late closing; but I have yet to learn that because a shop-door is not barred every employé of an establishment must necessarily be at work, and I can guarantee that my own have individually easier hours than many of those in shops which close perhaps a couple of hours before mine.

"A painful example of persons rushing into print without any regard to their knowledge of the subject on which they endeavour to enlighten the world is afforded by Mr. Robinson, who ingeniously contrives to crowd three mis-statements into three consecutive lines. Let me assure him (1) '*E. H. S.*' does not 'keep his shop open to midnight'; (2) that one of the '*idle* theatricals' whom '*E. H. S.*' is accused of pampering is a gentleman whose daily expenses in connection with his theatrical undertaking, I have recently seen stated, frequently exceed 500*l.* (an expenditure representing an amount of business not usually accomplished by an *idle* man); and (3) that it is quite beyond my humble experience to see any '*theatrical*', *idle* or otherwise, rushing about during the third or any other act of a play to procure their war-paint, such services being performed when necessary at such a period of the evening by their respective '*dressers*'. '*A Suburban Chemist*' is quite correct in his contention that this Bill would most injuriously affect the class to which he belongs, and I will even go further, and say that its whole tendency is to extinguish the smaller tradesmen, and play into the hands of co-operative stores and *omnium-gatherum* shops, whilst it will entail great hardships on many members of what are usually called the working-classes, who, living miles away from their work, and not leaving their employment till eight o'clock or past, will have no opportunity of procuring provisions for their suppers or breakfasts except, possibly, in their dinner-hour. I can only

reiterate my sincere hope that, alike in the interests of the public, our own business, and trade in general, the promoters of this Bill may never succeed in getting it passed through the legislature."

7/227. *H. H. C.* strongly supports the Bill, partly for the sake of assistants and apprentices, and partly for the sake of masters.

69/226. *A Chemist* (who does not send his name), writes in support of the Bill.

9/227. *Vigilans* (writing from Glasgow) hopes that when the early closing Bill comes to be formulated the authorities will not exempt "doctors' shops" from its operation. By "doctors' shops" he means shops where a retail trade is done. He also suggests that the Bill should make it compulsory to close the door at a certain hour, but that all customers in the shop at that hour should be served after the door is shut. [Clause 14 of the Bill makes this provision.]

~~Factory-made Preparations.~~

SIR,—We observe that Mr. Martindale, singularly enough, in his quotation from Ogilvie, has simply quoted from between the brackets (though the etymology here has little significance), and has passed by the definition proper. Here is the proper definition of "Nostrum":—"A medicine, the ingredients of which are kept secret," &c.

As we have always stated that Hazeline is prepared from the fresh bark of hamamelis, and also described the mode of its manufacture, it is obviously irrational and unjust to apply to it such a term. Our label states what this preparation is made of, but we look in vain through the labels on some of Mr. Martindale's nostrums, that have been brought before us, for their composition, or even their nature. Everyone is perfectly free to manufacture a preparation like Hazeline, and the advantages which we claim to give the profession and trade in the use of this particular one are simply the special care and skill exercised in its manufacture, and its unusual strength; and to these may be solely attributed the remarkable results from its use which have been frequently noted in the medical journals, and which have been commented upon at the British Medical Association.

As it was previously stated in print that Hazeline is a nostrum, it seemed appropriate for us, after the Pharmaceutical Conference, to correct any impression such an erroneous and unfair statement might create.

Yours truly,
October 11. BURROUGHS, WELLCOME & CO.

DISPENSING NOTES.

[The opinion of practical readers is invited on subjects discussed under this heading.]

Quinine and Ammonia.

SIR,—Will you kindly give me your opinion respecting the following prescription:—

Ferri et quin. cit.	..	..	..	..	5j.
Ammon. carb.	..	..	..	..	3ij.
Tinct. aurant.	..	..	..	..	3ij.
Aq. ad	..	..	..	..	3vj.
M. ft. mist.	3j.	t. d.s.			

When directed to dispense it, I pointed out that the first two ingredients were incompatible, that the ammonia would precipitate the quinine, and that the dose of carbonate of ammonia and that of tincture of orange were in excess of the B. P. maximum doses. The prescription was made up as ordered, the result being a turbid, bottle-green mixture, in which the quinine was precipitated. Is there any way of making this a presentable mixture? I am told it is taken from a standard medical work.

Faithfully yours,
C. F. DEAR, Staff-Sergt. M. S. C.
Dispenser Cambridge Hospital.

[No plan can be adopted for preventing the precipitation of the quinine, and the best results are obtainable by dis-

solving the citrate in 5ss. of water, and mixing it with the tincture. Dissolve the ammonia in the remainder of the water and mix the two solutions. The addition of a little mucilage to the ammonia solution before mixing would prevent the quinine adhering to the bottle, but this addition cannot be made without sanction, and it is better to dispense the prescription as it is. The dose of ammonium carbonate is unusual, but not dangerous.]

An Army Mixture.

SIR,—A short time since a mixture as under was taken into use in this hospital as a stock expectorant mixture. After standing three or four days it gave forth a peculiar and most offensive smell, resembling stale urine. I thought at first the heat of the weather had something to do with it, but though I have made it in cool weather with perfectly fresh mucilage the result has been the same—a good mixture at first, but turning off after the fourth day. I am aware that alkaline mixtures do not keep well, but as this has long been a recognised stock mixture in the army, there must be some reason in my ease why I have been unsuccessful.

The following is the mixture referred to:—

Soda bicarb.	..	..	..	..	grs. 80
Tinct. hyoscyam.	..	..	..	..	3ij.
Mucilaginis acaciae	..	..	..	..	3ss.
Aqua ad	..	..	..	..	3vij.
M. ft. mist.	3j.	pro dosis.			

Faithfully yours,
C. F. DEAR, Staff-Sergeant M.S.C.,
Dispenser, Cambridge Hospital.

[This mixture will not keep without the addition of a preservative, such as spirit or glycerine. Mucilage, when diluted, rapidly becomes sour and offensive, and the same applies to tincture of henbane, especially in presence of an alkali.]

An Explosive Mixture.

SIR,—I shall be obliged if some of your readers will explain why the following medicine explodes. I have dispensed it four times with the same result. The last time it was dispensed over night and left in the shop, but standing intact in the morning, it was sent off into the country; two days after, my customer called to say that, like the others, it had burst with a loud explosion.

Yours, &c.

INQUIRER. (224/18.)

The prescription is as follows:—

Ammon. bromid.	..	..	..	..	gr. 24
Tinct. convalar. majal.	..	..	..	..	3j.
Syrup. zingib.	..	..	..	..	3ij.
Aqua ad	..	..	..	..	3vij.
M. ft. Cap. $\frac{1}{2}$ bis die.					

16/228. *Pulvis Glycyrrhizæ Co.*—Puzzled has received a prescription for the German *Pharmacopœia* powder, at which he was surprised, and asks if he would be justified in giving the B.P. preparation. We think not, even although they only differ in the German being made with *sulphur præcip.*, and the British with *sulphur subl.*, that difference may be known and appreciated by the prescriber. The powders are now, however, practically the same, and this might be pointed out to the prescriber if an opportunity occur.

Unusual Doses.

SIR,—I have to-day received the following prescription to dispense for a child I knew to be but nine months old, and I would like to know through your medium would the majority of chemists dispense it (knowing the age) without consulting the doctor? And after consulting the doctor do they consider it a safe dose of syrupus ferri iodidi for that age.

PRUDENTIA. (36/224.)

The prescription referred to by our correspondent is:—

Potassii bromidi	..	..	..	..	3j.
Syrupus ferri iodidi	..	..	..	..	3ij.
Solv. Sig. : A teaspoonful thrice daily.					

[There is no doubt that an ordinary teaspoonful dose of syrup of iodide of iron, equal to about 80 minims or more, would utterly derange a child's digestive organs in a day or two, and this ought to be considered by the prescriber. What the dispenser should do in the circumstances is a good subject for discussion, and we ask opinions upon it.]

LEGAL QUERIES.

23/220. *The Sale of Poisons.*—*Ergotinum* writes:—“Some time ago a well-dressed lady came to the counter and asked me for some “liquid extract of ergot.” I explained to her that as it was included in the schedule of poisons I could not let her have it. She replied, “I am a midwife.” I asked her for a guarantee of that fact, and she produced a midwifery certificate from Queen Charlotte’s Lying-in Hospital. I wish to ask if it is legal to retail any or all of the poisons to any person holding such certificate, the person asking for such articles being unknown to the seller, and not being introduced by any other person mutually known?”

[Certainly not; such sales would entirely frustrate the purpose of the Act.]

34/220. *Rhubarb.*—Grocers may sell chlorodyne if it is stamped and if they hold a patent-medicine licence, and we understand that there is nothing in the Pharmacy Act to prevent them selling chlorodyne lozenges. It is believed that it is illegal for them to sell fly-papers containing arsenic, and, although it is perfectly well known that they do so, no one has had the temerity to prosecute.

29/226. *Bicuspid.*—The Dentists Act does not prohibit the announcement by unregistered persons of the Extraction of Teeth. It is the use of the title “dentist,” “dental surgeon,” &c., which is prohibited. Moreover, an unregistered person cannot recover fees for a dental operation.

8/227. *G. E. B.*—The law does not specify any particular qualification for public analysts. The local authorities who appoint them, however, would in most cases expect some guarantee of fitness. The F.I.C. qualification, or the B.Sc. degree, would be the most esteemed, but these would be of little use to a man who had not had practical experience in the analysis of foods, &c.

224/11.—*Foot-path Rights.*—*Inquirer* writes:—My next-door neighbour and I have an equal space or private frontage between our shops and the public footpath. He deals in ironmongery, Birmingham ware, crockery, &c., and he puts out a stall every day on his piece of frontage, and erects on it large piles of goods to the height of eight, ten, and twelve feet, which completely hide my shop until anyone is nearly opposite to it; and customers sometimes remark that they have gone right past my shop without seeing it on that account. It is a great nuisance to me, and I shall be glad if you can tell me whether I can compel him to abate it or not.

[If the difficulty cannot be settled by private negotiation, it is evidently one for a local solicitor's advice. The neighbour has a *prima facie* right to use his piece of ground as he likes; but he may use his rights improperly, so as to injure you; whether he does so or not can only be decided on the spot.]

12/220. *K.*—If you mean how can you ascertain whether a certain word or design has been registered as a trade-mark, you can learn this by payment (personally) of 1s. as a search fee at the Trade-marks Office, Southampton Buildings, London, W.C. Or you can pay 5s. on application for registration of the design, and if it has already been adopted for the same class of goods you will get your application refused. A false representation, by the use of the word “registered,” that a certain trade-mark is registered renders the person making such a representation liable to a penalty of 5l. We cannot say whether the comptroller would prosecute in any case brought before him, but the application might be made to him.

10/46. *G. W.*—The title “chemist” is protected. We do not think the Pharmaceutical Council would ever prosecute a *bonâ-fide* manufacturing, analytical, or consulting chemist, though it is quite likely that they could get a conviction against such a person. But they would be likely to prosecute if such a person used the title in connection with a retail druggist's shop.

28/218. *Anxious.*—The manufacture of soluble essences for confectionery, aerated waters, &c., comes strictly within the definition of compounding spirits, for which a special licence is requisite. But the Board of Inland Revenue have stated (See THE CHEMIST AND DRUGGIST, June, 1883, page 290) that they will not interfere in such cases. They would not allow, however, the manufacture of essences such as are used by publicans. An annual licence of 10s. must be paid by anyone who uses a still for any purpose.

23/53. *Z. Y. X.*—We presume that the qualification of Pharmaceutical Chemist, Ireland, would be accepted in Pennsylvania, U.S.A., as sufficient proof of ability and skill. Anyone holding that certificate would at the most be subjected to a formal examination only.

For information on the other subject please consult the advertisements in this Journal.

41/222. *Constant Reader.*—There are Pharmacy Boards appointed by the respective Colonial Governments (and quite distinct from the Pharmaceutical Societies which exist in some of the colonies), at Adelaide, Brisbane, Melbourne, Sydney, and Wellington. Official questions concerning the examinations should be addressed to the secretaries of these “Boards.”

MISCELLANEOUS QUERIES.

222/39. *Herbs.*—*Kestrel* says:—“The best herbs in 2-oz., 4-oz., or 8-oz. packet, compressed, are the ‘Shaker's,’ Mount Lebanon, Columbia co., N.Y.”

For “Josephus Chips,” *Harrold* (47/223) suggests we should read “sassafras chips.”

Facta non Verba (59/223) recommends 219/62 to use Cox's Gelatine, which, he says, will make a bright glycerine jelly.

Haematoxylin Stain.

216/29. *W. W.*—Dissolve 0.35 grammes haematoxylin in 10 c.c. of water, and add to it a few drops of a solution of alum, consisting of 1 grammes alum to 10 c.c. water. I also use the following, and find it satisfactory:—

Logwood chips	4 oz.
Alum	1 "
Methylated spirit	1 fl. oz.
Water	1 pint

Dissolve the alum in the water, add the spirit, and macerate the logwood in the mixture (cold) 24 hours; filter.

Darlington, Oct. 10.

Yours &c.,

T. HART.

Cucumber Cream.

SIR,—I prepared some cucumber cream from your recipe in THE CHEMIST AND DRUGGIST, page 551, last volume, which has turned out all that can be desired, some bottles of which I have still beside me, showing not the slightest separation. A fortnight afterwards I prepared another batch from the same stock, using the same quantities, and giving it the same manipulation, but which on cooling first became solid and afterwards separation took place. I again tried another quantity, using extra precautions to ensure its turning out similar to the first, and confining myself as nearly as possible to same temperature, &c. This when finished appeared to be all right, but next day I observed it getting firstropy and thick, until it has now gone like No. 2. Nos. 2 and 3, which became almost solid, have now become a blubber-like mass, surrounded with a greyish-white thick watery fluid.

Upon reflection I think that in making batch No. 2 my

ingredients were not quite so hot as in making No. 1; but in making batch No. 3 I kept them similar to No. 1.

Kindly give me an explanation; also, if possible, how to make Nos. 2 and 3 good again.

Yours very truly,

September 7.

S. N. P. (209/20.)

[The preparation is one which requires considerable care in making. The fat must be thoroughly incorporated with the strong soap-solution, and the subsequent addition of hot water must be constant, and just sufficiently quick as to allow thorough mixing. A cream which goes wrong cannot be made good. You might try a different method of mixing, viz., to place the soap, with the spirit and an ounce of water, in a flask or bottle which will not break, and heat until dissolved, then incorporate it with the ointment in a mortar and add the remainder of the water *sec. art.* Let us know your results.]

210/20. H. S. V.—The imitation beads are made of asphalt.

Chemists' Reference Books.

SIR,—One of the competitors for the guinea prize offered by you for the best selection of books of reference suitable for a chemist's library, names the "Proverbs of Solomon." Oft has my wife found fault with me for letting THE CHEMIST AND DRUGGIST form part of my Sunday's literature, but this number has been the means of my devoting this Sunday evening to a perusal of the "Proverbs of Solomon." I have, however, failed to find in it any passage or passages specially applicable to our trade. Perhaps your correspondent will be good enough to mention his reasons for selecting this book.

Faithfully yours,
S. L.

September 26.

11/220. Stanley.—Tanner's "Diseases of Infancy and Childhood," published by Renshaw at 10s. 6d., might perhaps suit you. You will find several others named in the list of reference books we published on September 25.

18/228.—O. will find the titles of all the chief works on *materia medica* in the list just referred to, which also indicates their relative popularity.

H. P. S. wants the title of a book giving different forms for hair dyes. He will find these in any of the recipe books, such as Beasley, Cooley, &c.

44/224. Dubium.—Botany Manuals.—Cooke's little book is used in classes for the Kensington Elementary Certificate, but only as a memorandum book; and, on account of its condensed nature, it is only suitable as such. Balfour's "Elementary Botany" (Black, 3s. 6d.) is an interesting and instructive work, suitable for your requirements.

9/221. Thomas Lamb.—Post-card Competitions.—We cannot spare space for lengthy criticisms of our awards, though we may mention that we are glad to have such when they are put pithily. In the Reference Library competition we accepted as the basis for our judgment the verdict of the seventy competitors as nearly as we could ascertain it. "That," says Mr. Lamb, "comes to much the same as giving a solution to analyse, and awarding the marks to those who named the wrong ingredients, simply because fifteen out of the twenty stated they were in." We catch Mr. Lamb's meaning, though we can hardly congratulate him on the clearness with which he has expressed it. The answer to his criticism is that in the case of the solution we should have facts before us, while in regard to the books we can only have opinions; and we thought it more respectful to our correspondents to accept the consensus of their opinions rather than set up our own.

Vaccination.

SIR,—In your last issue you publish a little piece of news headed "A Protesting Chemist," and give particulars of the case of Mr. Thomas Booth, who was prosecuted and fined at Salford for refusing to allow his child to be vaccinated. I have thought it would be interesting to know how many of your chemist readers are opposed to the Vaccination Acts. I know a good many chemists who are anti-vaccinationists, and as the movement is spreading rapidly, would like to know also the reason for this opposition on the part of members of our profession.

Yours truly,

A. T. MARTIN.

65/717. Student wants statistics and information, as he is preparing a paper on vaccination. The case for vaccination was presented concisely in a pamphlet published a year or two since by Mr. Ernest Hart, which can possibly still be obtained at the office of the *British Medical Journal*, 161 Strand. The Anti-Vaccination Society will no doubt supply statistics on the other side. Literature against vaccination can be obtained in abundance from Mr. E. W. Allen, 4 Ave Maria Lane, London, E.C. The English law respecting vaccination is that a child must be vaccinated within three months of its birth. The registrar is charged to see to this.

CAUTION.—Messrs. George Mason & Co., King's Road, Chelsea, tell us that a person of between forty-five and fifty years of age, with an American accent, called on a customer of theirs at Brighton and collected an account and took a new order, but forwarded neither cash nor order to them. They suggest that this individual may represent them or some other firm in other quarters.

12/229. A West-end (London) firm ask us to mention that a Frenchman has taken to three chemists of their acquaintance the following prescription:—

Vin de Mariani.	—					
Terebinthine caite	..	..	..	..	..	5 grammes
Baume de tolu	..	..	..	..	..	2 "
Acet. morph.	..	..	..	..	..	0·02 "
Ft. pil. No. 60.						

The gentleman takes the wine with him and says he will call again for the pills, which in these three cases it appears he has not yet done. There is a delicacy of humour in setting the dispenser to work on such a pill-mass for the sake of securing a bottle of wine, which indicates a refinement of skill on the part of the practitioner.

Information wanted.

[Replies to the following requests are solicited by Correspondents of THE CHEMIST AND DRUGGIST.]

18/220. P. H. would like to know what is to be supplied for "Kipney" and "Seate Cedar," which occurred in a recipe handed in a few days ago.

20/224. E. V.—What is "Ale Aliger"?

Smees's Furniture Polish Reviver.—Maker's address.
58/221.

210/99. C. H. L.—Mint Firths' sulphate of copper crystals. Maker's address.

22/226. Maker of belladonna plaster spread on pink elastic cotton web.

15/221. Makers of pale green square bottles, sides and shoulders panneled; 2101 stamped on the bottom.

17/199.—Makers of cocaine lozenges.

5/550.—Maker of cheap medicine-chests.

52/204. How is stannous chloride used to test gold-plate?

[In cases where makers of special products are asked for, replies should be addressed to the editor with the quoted number marked on the reply (not on the envelope). Information obtained in this way is forwarded to the inquirer.]

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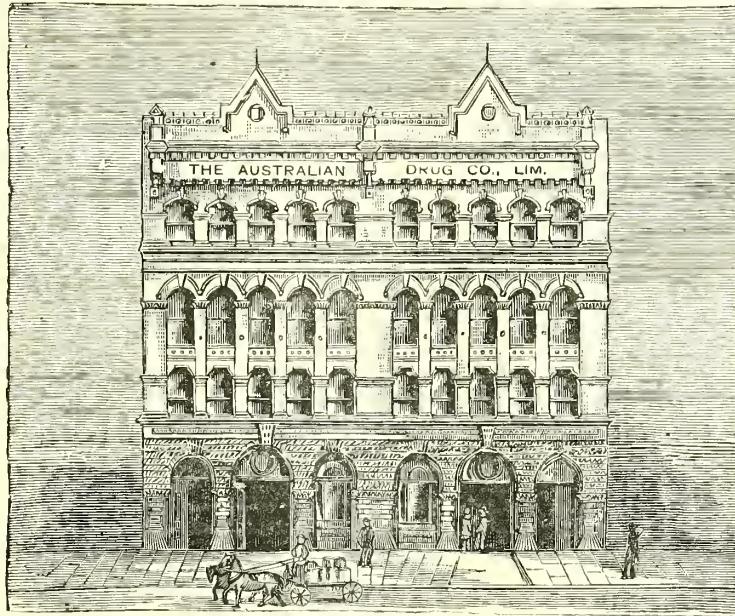
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xx

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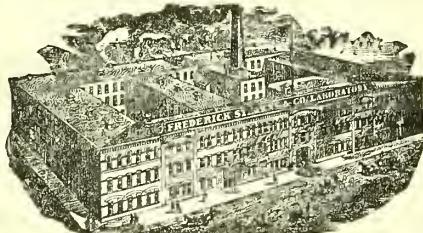
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Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

See Index, pages i to iii.

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	containing 25 PILLS	containing 100 PILLS		containing 25 PILLS	containing 100 PILLS
Quinine, Bi-Sulphate	5 0	16 0	Quinine, Sulphate	5 0	16 0
" " ½ gr.	5 0	16 0	" "	5 0	16 0
" " 1 gr.	5 0	16 0	" "	5 6	18 0
" " 2 gr.	7 6	26 0	" "	8 0	28 0
" " 3 gr.	10 6	38 0	" "	11 0	40 0
" " 4 gr.	13 0	48 0	" "	14 0	52 0
" " 5 gr.	16 0	60 0	" "	17 0	64 0

"McK. & R." PILLS. Manganese Bin-Oxide, 2 grs.

It appears to be an obstinate chemical fact, that permanganate of potassium, on account of the rapidity with which it is decomposed by organic matters, cannot possibly act *as such* beyond the stomach.

In the opinion of recognised authorities (mentioned by Dr. C. E. Billington, before the Section on *Materia Medica* and Therapeutics of the New York Academy of Medicine, Feb. 17th, 1886), the manganese of the permanganate separates in the stomach in the form of the hydrated manganese di-oxide.

It follows that for all Therapeutical purposes outside of the stomach itself the internal administration of the permanganate of potassium is simply one mode of the administration of bin-oxide of manganese.

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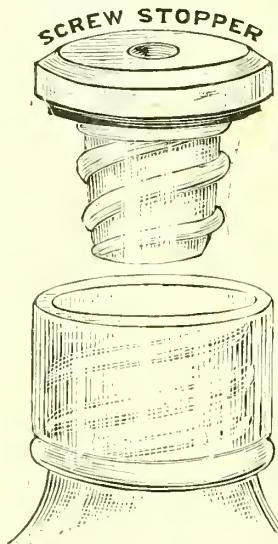
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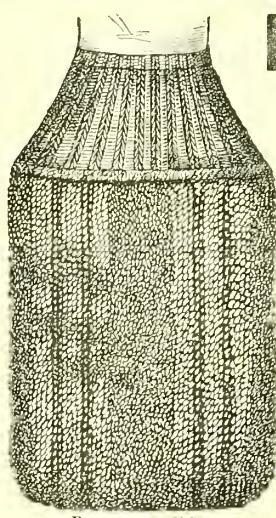
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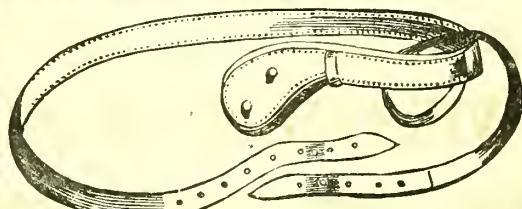
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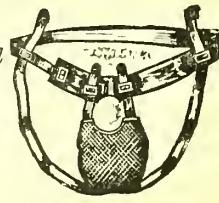


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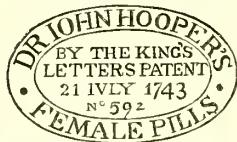
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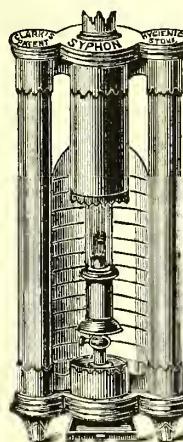
Kay's New Transparent Cement for Broken Articles. "Clear as Crystal," "Stronger than Glass," "Tough as Leather," 6d., 1s., 2s., in Boxes or on Cards. Showcards, Handbills, with name, &c. Specimens, &c., for home or export, free.

KAY'S COMPOUND

ESSENCE OF LINSEED, ANISEED, SENEGA, SQUILL, TOLU, &c. (with Chlorodyne), 9 $\frac{1}{2}$ d., 13 $\frac{1}{2}$ d., 2/9, &c.

KAY BROS., OPERATIVE CHEMISTS, STOCKPORT.

Works and Laboratory: ST. PETERSGATE.
Successors to Sims, Shaw & Hornby. Founded by Olive Sims, 1786.



“SYPHON”

(REGISTERED TITLE)

(CLARK'S PATENT)

GAS HEATING STOVES.

NO FLUE REQUIRED.

No smoke. Nosmell. No dirt or trouble. No danger. All sulphurous vapours are condensed inside the Stoves, and passed off as a liquid into tray beneath. The ONLY SAFE ones for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Shops, Offices, Churches, Schools, &c. BEWARE OF IMITATIONS.

Price Lists and Terms on application to

S. CLARK & CO., Patentees

(Late Hygienic Heating & Lighting Co.),

Park Street Works, Islington,

LONDON, N.

Agents: MAW, SON & THOMPSON, Aldersgate Street, London, E.C.

SILICATED CARBON PATENT MOVABLE BLOCK FILTERS.

LIBERAL DISCOUNT TO THE TRADE.



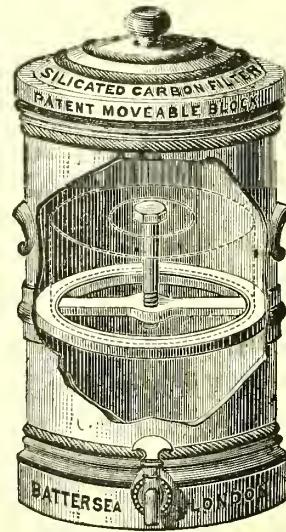
Domestic Filters (as above), in Cream-coloured Stone-ware, with Plated Taps and Patent Movable Blocks:—

No. 27.	O. ½ gal.	10/- each.	D. 6 gals.	42/- each.
A. 1 "	14/- "	E. 8 "	52/- "	
B. 2 "	21/- "	F. 12 "	70/- "	
C. 4 "	32/- "			

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter OPEN for inspection and cleansing.

The working parts are stone-ware, and no corrosion is possible.

No loose Pan or inner vessel to cause breakage.

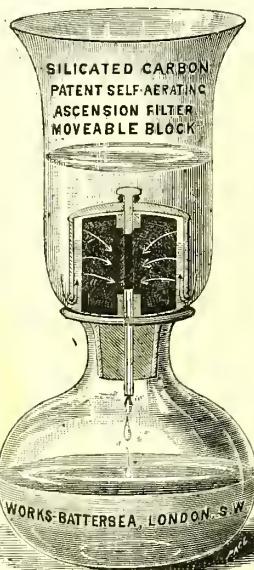


Dining Room Filters, in Marbled China, with Plated Taps and Patent Movable Blocks:—

No. 22.	A. 2 gals.	35/- each
B. 5 "	80/- "	
Refrigerative Terra Cotta, do. do. :—		
No. 25.	2 gals.	31/6 "

THE NEWEST AND MOST EFFICIENT TABLE FILTER.

The water ascends in the direction indicated by the arrows, and each time the top glass is filled the air under the porcelain cover is forced through the Silicated Carbon Block, which is thus automatically aerated.



PLAIN GLASS.

No. O-1 Pint	...	...	2/6 each.
„ A-2 „	...	...	4/- „
„ B-3 „	...	...	5/6 „

By simply removing the glass peg the Silicated Carbon Block is at once released for cleansing or renewal.

The Carbon Blocks are efficiently cleansed by boiling, and extra blocks can be supplied with each Filter when desired.

No. 38.

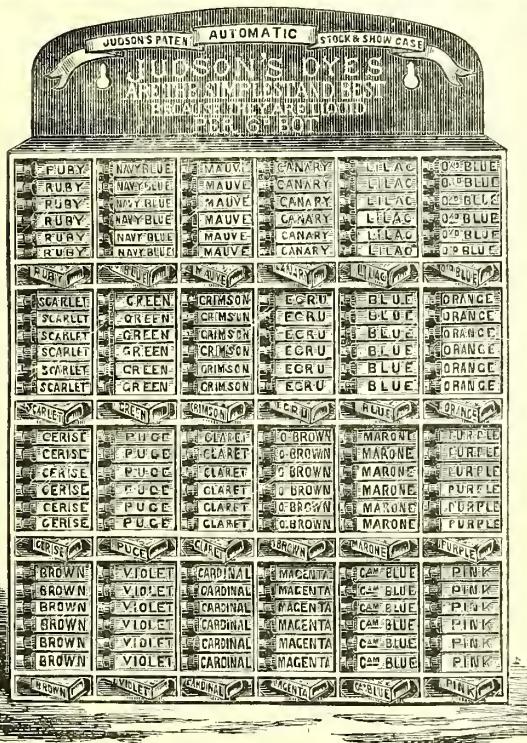
ENGRAVED GLASS.

No. O-1 Pint	...	...	3/6 each.
„ A-2 „	...	...	5/6 „
„ B-3 „	...	...	7/6 „

FOR FULL ILLUSTRATED LISTS WRITE TO THE

SILICATED CARBON FILTER COMPANY,
CHURCH ROAD, BATTERSEA, LONDON, S.W.

THE LATEST INVENTION !!!



THE NEW PATENT SHOW CASE,

SHOWN IN THE ABOVE DRAWING,

Is made to hold 7 Bottles of each of the 24
Leading Colours of

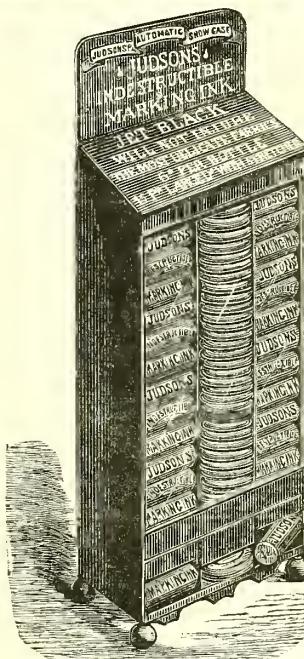
"JUDSON'S DYES."

CASE WITH CONTENTS COMPLETE,

48/- (subject).

This is the most attractive and convenient Show Case ever offered to the Trade; may be hung up, or will stand on counter.

The Bottles are so arranged that when one is removed another immediately takes its place.



AUTOMATIC
SHOW CASE,
TO CONTAIN
3 dozen 6d. and 3 dozen 1s.
OF
JUDSON'S "INDESTRUCTIBLE"
MARKING INK.

PRICE COMPLETE WITH CONTENTS,

36/- (subject).

To stand on counter, or may be hung on wall.

Wherever these Cases are shown the sale is very large, and this Marking Ink, which is an entirely new invention, is the only Marking Ink ever invented that is absolutely indelible.

DANIEL JUDSON & SON, LTD.
77 SOUTHWARK STREET, LONDON, S.E.

J. & W. BYGRAVE, SHOP FITTERS,

12 CURZON STREET, WENLOCK STREET, HOXTON, LONDON, N.

Note the letters we receive in receipt of work done by us.



£45.

Complete Fittings for Chemist's Shop, Fixing included. Save 25 per cent.

From Mr. JAMES, Chemist, 260 Upper Street, Islington, N.—"I feel it is only due to you to say that this is now the third shop you have fitted for me to my entire satisfaction, and at prices considerably below other fitters."

From Mr. ALEXANDER, Chemist, Banff.—"The screen and counter case came to hand yesterday; I am very well pleased with them both, and when I get them fitted up they will have a very effective appearance."

From Mr. FREEMAN, 89 Linthorpe Road, Middlesborough.—"I am delighted with the wall fitting: it is well worth what I paid you for it."

From Mr. KAY, Chemist, 143 Northenden Road, Sale, Cheshire.—"The drawers arrived on Friday and glass cases yesterday, quite safe; I am very much pleased with the work, and shall be glad to answer any references."

From Mr. FOSTER, 25 Charlotte Street, Landport.—"Cases duly to hand; I like them very much; shall know where to send when I require anything else in that way."

From Mr. AYRE, Chemist, Market Place, Thirsk.—"I duly received dispensing screen and show case, and I am very pleased with the style and workmanship, and I consider your price most reasonable, s you are much below others."

GEORGE TREBLE & SON, MEDICAL SHOP FITTERS & PLATE-GLASS SHOW-CASE MAKERS. ESTABLISHED OVER 40 YEARS.

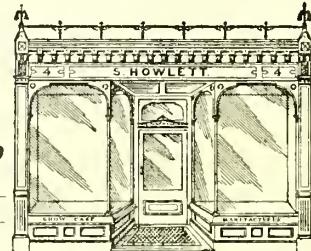
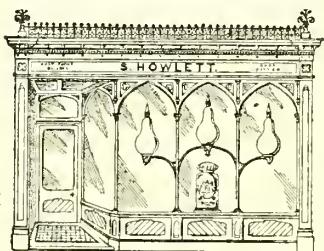
The Offices of the Pharmaceutical Society, London, and the Show-room, Surgical Instrument Department, and Counting House of Messrs. Maw, Son & Thompson, Aldersgate Street, E.C., were fitted by us, and prove our reputation in this branch of our business. We have also large numbers of testimonies expressing satisfaction with work done by us in all parts of Great Britain and Ireland, and for the Colonies.

GEORGE TREBLE & SON will have pleasure in waiting on firms about to furnish or make alterations, and supply them with Designs, Plans, Estimates, and all necessary information, *free of charge*.

FACTORY: 27 CANAL ROAD, HOXTON, LONDON, N.

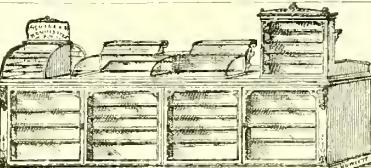
ESTABLISHED 1830.

S. HOWLETT, MEDICAL AND GENERAL SHOP FITTER, Shop-Front Builder and Show-Case Maker. EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very CHEAP.

CABINET FITTER to the Pharmaceutical Society of Great Britain.

PLANS and ESTIMATES SUPPLIED.

Manufactory and Showrooms—4 Lindley St., Sidney St., Mile End Road, LONDON, E.



BOWLING & GOVIER, MEDICAL SHOP FITTERS AND CASE MAKERS, GUN STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON. *Send for Estimates and List of Shops Fitted in our Modern Style.*

EXHIBITION SHOW CASES OF EVERY DESCRIPTION.
Best Workmanship only, at Prices that will insure satisfaction.

NOTICE! 66 PENTONVILLE ROAD, N. SOLE ADDRESS.

LEMAITRE & CO.

(ESTABLISHED 1830),

MEDICAL AND GENERAL SHOP FITTERS, WRITERS, DECORATORS, &c.

£50
COMPLETE FITTINGS

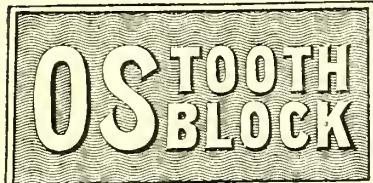
FOR
CHEMISTS' SHOPS.

SEND FOR OUR ILLUSTRATED LISTS.
Best Manufacture and Seasoned Wood.

£100
COMPLETE FITTINGS

FOR
CHEMISTS' SHOPS.

THE BEST & SAFEST DENTIFRICE. OSCAR SUTTON & CO., Preston, Lancashire.



REGISTERED TRADE MARK.

The following Testimonial from Mr. JAMES A. REID, Chemist and Druggist, Helensburgh, we quote by special permission: "Enclosed please find cheque in payment for the Tooth Blocks. I am highly pleased with their new form and extra inducements presented through the leatherette labels and chemist's own name stamped on each block. These give one special encouragement to keep prominently before an intelligent public what UNDOUBTEDLY IS THE GREATEST DENTIFRICE OF THE AGE."

No. 0.
Loose, without Boxes.

No. 1.
In Patent Metallic Boxes,
retail 1s.

No. 2.
In Crystal Caskets,
retail 2s. 6d.

OVER 1,000 TESTIMONIALS.

HORN & SON
AUTHORISED AGENTS FOR PROCURING
PATENTS AND TRADE MARKS,
SOMERSET CHAMBERS, 151 STRAND, LONDON
(NEXT TO SOMERSET HOUSE).
Guide to New Patent Law and Registration gratis.

**TRADE MARK PROTECTION
ASSOCIATION.**

2 LANCASTER PLACE, STRAND, LONDON.

Registration and other business connected with Trade Marks
in the United Kingdom and Foreign Countries and Colonies.

S.V.R. (RECTIFIED PURE SPIRIT)

Export and Home Trade. Finest quality at lowest
possible prices. Samples free anywhere.

EDGELL BROTHERS.
4 BRABANT COURT, PHILPOT LANE, LONDON, E.C. [1]

COCA WINE.

Agents Wanted all over England, Scotland, Wales, and
the Colonies.

ARMBRECHT, NELSON & CO.,
Temporary—
23 DUKE STREET, GROSVENOR SQUARE, LONDON, W.

INDIARUBBER STAMPS.



POCKET STAMP, WITH PENHOLDER AND PENCIL COMBINED.
From 3/- subject. Send for Lists.

M. LINDNER, Manufacturer, 170 Fleet St., London, E.C.

PERFUMES, No. 30.

FIFTY KINDS.
9s. for 20 ozs., Carriage Paid.

Samples of any kind for 2 stamps.

When buying, compare my Perfumes with other makers', and buy the best.
GEORGE DURRANT, HERTFORD.
London Depot—Messrs. BAISSE BROS. & CO.

PURE PRECIPITATED CHALK.

Cheapest Sellers in the Market.
Chemicals, Drugs, and Oils at lowest market rates.

APPLY TO
AUG. LEVERMORE & CO.,
8 LIME STREET, LONDON, E.C.

PETROLEUM JELLY,

EQUAL TO AND CHEAPER THAN VASELINE.
SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.
GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.
Samples and Prices on application.
GRINDLEY & CO., POPLAR, LONDON, E.

BROMIDIA

(REGISTERED).

NEW HYPNOTIC.
One Bottle 4/6 | One Dozen 40/
One Gross, 10 per cent. discount.

FOR SALE BY ALL WHOLESALE AND EXPORT DRUGGISTS.

BATTLE & CO., 76 NEW BOND STREET, LONDON, W.

POWELL & BARSTOW,

5 Albion Place, Blackfriars Bridge, London, S.E.,
Late W. HURLSTONE & CO., Blackfriars Road and Vine Street, S.E.,
MANUFACTURERS TO THE WHOLESALE TRADE OF

ELASTIC GUM SURGICAL INSTRUMENTS.

WORKS, LAMBETH. ESTABLISHED 1830.

S. SAINSBURY'S

Prepared from the finest
ENGLISH LAVENDER,
without any foreign whatever.
176 & 177 STRAND, LONDON.
Wholesale and Shipping terms on application.

Lavender

Water.

"SPÉCIALITÉ" LIME JUICE

(NO MUSTY FLAVOUR).

For Sample and Terms

FELTOE & SONS,
ALBEMARLE STREET, LONDON, W.

Can be obtained through the Wholesale Houses.

J. SANGER & SONS' PRICE CURRENT,

With ADDENDA and ALTERATIONS, IS NOW READY,
AND WILL BE FOUND TO BE A MOST COMPREHENSIVE LIST OF

PROPRIETARY MEDICINES, DRUGGISTS' SUNDRIES,

PERFUMERY, LOZENGES,
MINERAL WATERS, &c.,
AND WILL COMPARE FAVOURABLY WITH
ANY OTHER LIST AS TO
PRICES CHARGED.

POST FREE ON RECEIPT
OF BUSINESS CARD.



Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions, should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

AGENCIES OF ALL KINDS UNDERTAKEN
ON FAVOURABLE TERMS.

CUBA SPONGES.

These Sponges are much finer than the ordinary Honeycomb, and are half the price. Send for a sample case containing 18 pieces for 10/-, less our discount, easily fetching from 9d. to 2/- each retail.

STRINGS OF FLORIDA SPONGES,

Varying from 6 to 10 inches in diameter, 15 pieces for £1 1s., subject to our discount.

TURKEY SPONGES, 40 pieces on string for 10/-, subject. Larger ones retail at 6d. and 9d. each, whilst the smaller do for Mouth and Eye Sponges.

J. SANGER & SONS, 489 Oxford Street, LONDON, W.

RESPIRATORS !!

		£	s.	d.
CLOUD, <i>per doz.</i>	... ... ... ... ... ... ... ... ... ... ... ...	0	8	0
COLLIER'S, <i>per doz.</i> , No. 0, 18/-; No. 1, 24/-; No. 2, 30/-; No. 3, 42/-; No. 4, 48/-; No. 5, 36/-; No. 6	2 14 0			
CORK, <i>per doz.</i>	... ... ... ... ... ... ... ... ...	0	6	0
COTTON WOOL, <i>per doz.</i>	... ... ... ...	Oral, 48/-; Orinasal	3	0 0
MAW'S ÆTHEREON, <i>per doz.</i>	... ... ...	Silver-plated, 40/-; Gilt	3	4 0
MAW'S MICRO-ÆTHEREON, <i>per doz.</i>	... ...	Silver-plated, 40/-; Gilt	3	4 0
MAW'S INCORRODIBLE METALLIC, <i>per doz.</i> , No. 1, 8/-; 1A, 12/-; 2, 21/-; 2A, 18/-; 3, 30/-; 3A, 24/-; 4, 32/-; 5, 40/-; 6, 45/-; 7, 50/-; 8, 56/-; Dwarf, No. 1, 24/-; 2, 30/-; 3,	2 0 0			
MAW'S SCARF, <i>each</i>	... ... ... ...	Silver-plated, 5/6; Gilt	0	8 0
NIGHTINGALE'S INVISIBLE, <i>each</i>	... ...	No. 1, 3/8; No. 2, 7/-; No. 3,	0	14 0
ROOFF'S, <i>per doz.</i>	... ... ... ...	19/-, 27/-, 39/-, 48/-, and	3	3 0
ROOFF'S ORINASAL CHARCOAL, for preventing the Inhalation of Deleterious Vapours and Poisonous Powders in Chemical and Manufacturing Establishments	... ... ... ... ... ... ... ...	each	0	5 6

S. MAW, SON & THOMPSON,
LONDON.

**HIGHEST AWARDS OF MEDALS AND DIPLOMAS
OVER ALL AMERICAN AND FOREIGN COMPETITORS,
AT MORE THAN THIRTY
INTERNATIONAL, STATE, AND LOCAL EXPOSITIONS.**

MEDICAL JURORS' AWARD, PHILADELPHIA, 1876.

"ORIGINALITY: The successful application of Rubber as a base for medical and mechanical plasters."
"RELIABILITY and general excellence of manufacture."

A VERDICT UNIVERSALLY SUSTAINED.

Firmly recognising the fact that the success of the medical practitioner and the surgeon depends in no small degree upon the integrity of the remedial agents and appliances which they employ, we have persistently adhered to the policy of making, in all our products,

BUT ONE QUALITY, AND THAT "THE BEST."

Our facilities for the production of our specialities are unequalled in extent and completeness by any other concern in the World. Our establishment represents an industry of which we are the founders, and which owes its universal recognition to our investigations and our efforts to bring these preparations up to Pharmacopœial standards and the necessities of medical and surgical practice.

The status of the whole plaster business is well shown by the analysis of Belladonna Plasters, the leading article on the list of spread goods, made in March, 1886, by Dr. Albert B. Prescott, Professor of Chemistry at the University of Michigan, and President of the American Chemical Society, from goods purchased by him in open market. The assays were made by the same process, in parallel operations, for the quantity of total belladonna alkaloids, estimated as atropine, with the following results:

BRAND OF PLASTER.	Per Cent. of Atropine in the Plaster Mass.	Quantity of Atropine in one Plaster (avg.)
Seabury & Johnson	0·39	0·543 grains
Grosvenor & Richards	0·17	0·264 "
T. W. Heinemann	0·15	0·230 "
Geo. E. Mitchell (Novelty Plaster Works)	0·05	0·045 "
The Porous Plaster Co. of the Village of Sing Sing, Proprietors of Allcock's Porous Plaster (Star Brand)	0·06	0·062 "

We have repeatedly demonstrated the

SUPERIORITY OF OUR ABSORBENT COTTON, LINT, AND GAUZE,

and the utter lack of absorbency which characterises several other makes. This is a matter easily tested by dropping a bit of the cotton or lint into water, and noting the rapidity with which it sinks to the bottom. Extreme absorbency is important when absorbent materials are desired at all. Some of our competitors are crafty enough to purchase our own lint and cotton, and re-wrap them under their own labels, for the purpose of making tests, but uniform excellence will be found only in goods bearing our brand.

THE PERFECTION OF OUR GOODS

means an outlay of time and money which forbids our attempting to compete for the "Cheap John" trade, but no other manufacturer can place upon the market goods equal in quality to our own at as reasonable prices as prevail throughout our list.

DISCHARGED EMPLOYEES AS WOULD-BE COMPETITORS.

We are obliged to issue a word of caution to physicians and the trade against parties who advertise themselves as manufacturers of plasters, and base their claims to confidence on the assertion that they have, at some time or other, been in the employ of Seabury & Johnson. This claim is usually made to convey the impression that the claimant was our "Superintendent," or occupied some position which made him master of the details of our business, and qualified him to operate works of this class. Thus far among those who have attempted to trade upon their past connection with us are a discharged night-watchman, a foreman of one of our departments, and a former engineer and general mechanic. Not one of these men possesses or can possess the slightest knowledge of pharmacy, and no man has ever left any department of our factory whose services it was worth while to retain. Nearly every merchant, especially if he be also a manufacturer of anything, has had experiences similar to our own, and in view of the facts stated will readily understand, when offered goods claimed to be made after the formulas or by the process employed by us, that all such claims are spurious and are made with fraudulent intent, and that the goods will in no way resemble our own, either in their composition or their durability. A fact of which further assurance can be obtained from a careful comparison of analysis of the two makes. We have taken legal steps to protect the trade and ourselves from the fraudulent pretensions of this class of pretenders, which is liable to be increased every time we discharge an employé.

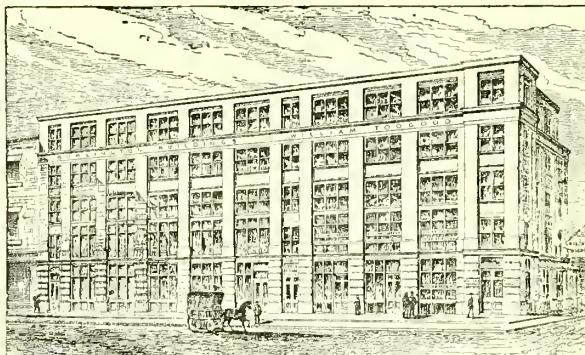
SEABURY & JOHNSON,

1 AND 2 AUSTRALIAN AVENUE, LONDON, E.C.,

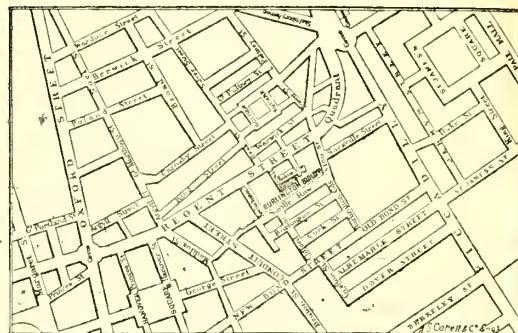
PROPRIETORS OF THE SEABURY PHARMACAL LABORATORIES,

Manufacturers of Indianrubber Pharmacopœial and Surgical Plasters, Antiseptic Dressings and Absorbents, Bandages, Oiled Silk and Muslin, and Surgical Dressings of all Descriptions.

GEO. J. SEABURY, President. J. M. PETERS, Treasurer. ROBERT J. SEABURY, Secretary.



WILLIAM TOOGOOD'S NEW PREMISES.



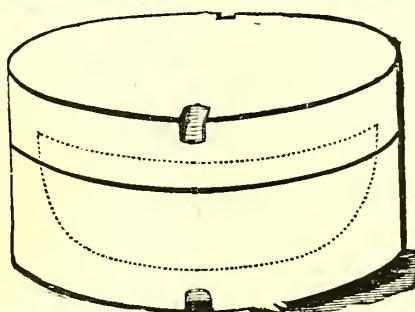
**WILLIAM TOOGOOD,
WHOLESALE AND EXPORT
GLASS BOTTLE MANUFACTURER
AND
DRUGGISTS' SUNDRYMAN,
HAS REMOVED FROM
35, 36 & 37 MOUNT STREET, GROSVENOR SQUARE, W.,
TO
BURLINGTON BUILDINGS,
HEDDON STREET, REGENT STREET, LONDON, W.**

**TOOGOOD'S IMPROVED PATENT
EARTHENWARE COVERED POTS**

Are claimed to be the most perfect and convenient yet offered to the Trade, and possess the following Advantages :—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

PRICES, per gross.

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{4}$	1	$1\frac{1}{2}$ oz.
18/-	18/-	18/-	20/-	22/-	24/-
2	3	4	6	8	oz.
27/-	34/-	42/-	54/-	66/-	

AUSTRALIAN AGENCY AND SAMPLE ROOM:

Mr. A. I. JOSEPH, Bond Street, Sydney.

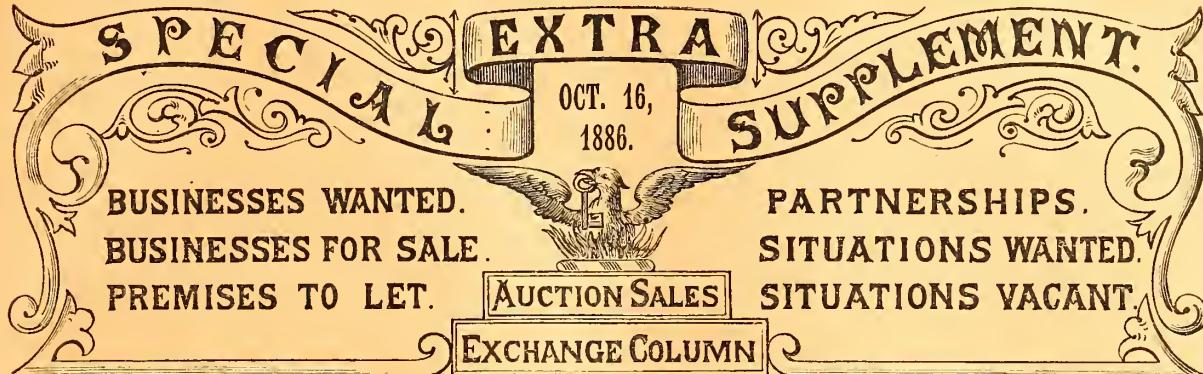
Telegraphic Address: "TOOGOOD LONDON."

Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

A copy of this Supplement is inserted in every number issued of "THE CHEMIST AND DRUGGIST."



Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until 5 p.m. on Thursday afternoon, or by first post on Friday morning of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

The Terms for Advertisements in this Supplement will be found printed under each heading.

OFFICE: 42 CANNON STREET, LONDON, E.C.

The VALUE of "THE CHEMIST & DRUGGIST."

TESTIMONY BY ADVERTISERS.

We have recently received many expressions of satisfaction from Advertisers, and amongst them is the following note:—

I am most gratified with the results of my advertising in your paper. I consider it by far the better journal for business than any other published. Facts speak for themselves. I find THE CHEMIST AND DRUGGIST mentioned ten times where other of our Trade Journals are once. I cannot allow this opportunity to pass without thanking you for the unremitting attention you have always shown. I must confess I had grave misgivings concerning your alteration from monthly to weekly publication; but, instead of fears, they are a pleasurable knowledge that business has increased wonderfully. (32/22.)

CHEMISTS' TRANSFERS. MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C., CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION. Immediate attention given to Foreign Commissions. Terms for Valuation on application. N.B.—No CHARGE TO PURCHASERS.

SALE BY AUCTION.

SOUTHPORT.

By order of the Executrix of the late Mr. James Kershaw, Chemist and Druggist.

Apothecaries' Hall (Established 1846), 179 Lord Street.

FRIDAY, 22ND INST.

(Commencing at Twelve noon).

THOMAS WHITEHEAD & SON are instructed by the Executrix to SELL BY AUCTION, upon the premises, as above, the high-class Movable FITTINGS, BOTTLES, JARS and CONTENTS, CHEMIST'S UTENSILS, and the whole of the excellent STOCK-IN-TRADE, first to be offered in one lot (if not previously sold by private treaty), and if not so disposed of them without reserve, according to catalogue, the premises having been sold, and possession to be given up on the 29th instant.

The Stock includes an excellent assortment of drug stores, tinctures, extracts, essences, essential oils, lozenges, patent medicines and proprietary articles, sponges, toilet brushes, toilet soaps, cosmetics, surgical appliances, &c., principally supplied by Messrs. Evans & Co., the eminent wholesale druggists, of Hanover Street, Liverpool. On view Thursday, the 21st instant, or any day prior to the sale.

For other information apply to the Auctioneers, 15 and 17 Williamson Street, Liverpool. Telephone 1339.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A SMALL COUNTRY BUSINESS in Westmoreland, near the Lakes; beautiful healthy country; no opposition and full prices; price £200, or valuation; reason for giving it up being a branch difficult to manage. Apply, Woolstencroft, Chemist, Carnforth.

£150.—Light Retail and Prescribing; returning £300 yearly at full prices; capital opportunity for heavy trade to be added; good house, yard, &c.; rent £20; unopposed. Apply "Midlands," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GOOD-CLASS Retail, Dispensing, and Agricultural Business, with Gilbey's sole Agency attached; best position in one of the best market and manufacturing towns in the North of England; splendid opportunity for intelligent business man with capital; satisfactory reasons for disposal; a bargain; must be sold. Apply, Fitzroy, care of Bleasdale, Bell & Co., York.

In one of the prettiest suburbs of London, eight miles out; situated in main street, opposite principal post-office; no other chemist in street; a very large, handsome, and heavily stocked chemist's shop; price £350; rent £60; no agents. Address, "Veritas," Barclay & Sons, 95 Farringdon Street.

HULL.—For immediate disposal, first-class light Retail, Dispensing, and Prescribing Business, situated in main thoroughfare; returns £725; rent £85; price £450. Apply, "Veritas," Law Library, Hull.

SURREY.—In consequence of ill health, will sacrifice for £250 a good-class Dispensing and Prescribing Business; large shop, well stocked, well fitted; good situation; house large and convenient, small garden; a bargain, and a genuine concern. Apply, H. G., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WEST HARTLEPOOL.—A trustee under deed of assignment made for benefit of creditors has a Mixed Business to dispose of for ready money, a bargain; handsome mahogany fittings; shop, with dwelling-house attached, situate in a good thoroughfare, west end of town; the business has been established 7 years, doing a fair trade; rent £40; to realise quickly, £150 (considerably less than the cost of fitting up) will be taken for the whole of the fixtures, fittings, and trade utensils with small stock; immediate possession and rent free up to November 23; inspection invited. Address, Thomas Etheridge, Accountant, West Hartlepool.

LINCOLNSHIRE.—Established over 30 years.—For immediate sale, owing to death of proprietor, general Retail Drug and Grocery Business in agricultural neighbourhood. Address, X. Y. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENUINE Dispensing and light Retail Business for immediate disposal on easy terms; good position in rapidly-growing, good-class residential district near Liverpool; good house; lease if required; this is a first-class opportunity for one with small capital. Apply to J. H. Walker, Chemist, Seacombe, Cheshire.

FOR IMMEDIATE DISPOSAL, an excellent Chemist's and Druggist's Business, in the best position in a Tyneside (Northumberland) town; satisfactory reason for disposal; no opposition near, and a pushing young man may soon realise a fortune; will sell at valuation; about £300. Apply, 230/10, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO LET.

3s. 6d. or fifty words; 6d. for every 10 words beyond.

CHEMISTS.—Corner Shop to Let, in rapidly rising neighbourhood; a good opportunity for a pushing young man; incoming low; no opposition. Apply, Lisle, Wakefield Street, East Ham, E.

EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FRANCE, BIARRITZ.—Assistant immediately wanted; please state age, height, and salary required; also give references. Apply to the London Dispensary, 19 Rue Mazagian, Biarritz.

WHOLESALE.—Wanted, a Young Man accustomed to office and warehouse. Apply by letter, stating age, salary, and experience, to R. E. B., 38 Duke Street, Manchester Square, London, W.

MEDICATED LOZENGES.—Wanted, an Agent, calling on Chemists in London, to sell above. Apply, J. P. Wright, City of York Steam Confectionery Works, Colliergate, York.

APPOINTMENT OF NON-RESIDENT DISPENSER AND INFIRMARY CLERK.

THE GUARDIANS of the Parish of Saint Matthew, Bethnal Green, will meet at the Board Room, Bishop's Road, Victoria Park, E., on Tuesday, the 19th day of October, at 5 P.M., for the purpose of appointing a Non-Resident Dispenser and Infirmary Clerk for the Workhouse, at a salary of £130 per annum, rising £5 annually to a maximum salary of £150.

The person appointed will be required to devote the whole of his time to the duties, and do the Dispensing, also to keep the books under the superintendence of the Medical Officer.

The hours of attendance will be from 9 A.M. until 1 P.M., and from 2 P.M. until 6 P.M.

Candidates must be Licentiates of the Apothecaries' Company of London, or must have passed a Major or Minor Examination of the Pharmaceutical Society of Great Britain.

Applications must be sent to me, accompanied by testimonials of recent date, not later than the 18th instant.

Candidates will have to attend personally on the day of election.

No travelling or other expenses will be allowed.

By order,

W. T. HOWARD, Clerk.

WANTED, at a small branch business, to live on the premises, an elderly respectable man of temperate habits, who would be contented with a small salary; or might suit a chemist's widow. Apply to A. P. S., 37 Church Street, Woolwich.

WANTED, a reliable, strictly steady, competent Single Man, for branch; must be a good prescriber and tooth extractor; an abstainer preferred. Full particulars and recent references to A. B., Messrs. Megesson & Co., Miles Lane, Upper Thames Street.

ASSISTANT (in or outdoor), in East Coast seaport town; A aged about 30; height 5 ft. 10 in.; undeniable references; abstainer preferred. Address, "Wax," care of Messrs. Burgoine & Co., 16 Coleman Street, London.

TRAVELLER, to represent Specialities; to call upon Druggists, Grocers, and Stores; state particulars, with copies of testimonials. 50/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, an Assistant well up to his business, for a General Country trade; no heavy work or Sunday business, and a comfortable home. G. Johnson, Chemist, High Street, Godalming, Surrey.

JUNIOR ASSISTANT required immediately; must be acquainted with a Mixed Country trade; state salary and all particulars; must be an abstainer. E. Guy, Chemist, Eign Street, Hereford.

ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

An Assistant writes on October 2:—

"I put an advertisement in the 'Assistants Wanting Situations' column. It may be interesting to you to hear that it was attended with most satisfactory results. I consider the new arrangements a great boon to the trade." 222/29.

JUNIOR or Improver; 3 years' experience in West-End; aged 19; good references. A. B., Post Office, Hemphill, Norwich.

TRAVELLER.—Required, after Christmas, situation as Traveller; 19 years' experience; for last 9 years represented old-established house amongst Surgeons; Minor qualification; aged 34; first-class references. H. Jenkins, Ellerslie, Park Road, Gloucester.

AS MANAGER; temporary or permanent; aged 28; varied experience; steady, active; good references; abstainer. "Chemist," 8 Church Street, York.

AS ASSISTANT, in London; accustomed to good-class Retail and Dispensing Business; Hall qualification; height 5 ft. 10 in.; aged 26; 8 years' experience; outdoors preferred. H. T. E., 12 Birchington Road, West Hampstead.

ASSISTANCY or Dispensership, end of October; aged 24; near London. G. Maddock, Blackburn.

JUNIOR or Improver; aged 19; son of a medical man; twelve months' experience; moderate salary; indoors preferred. 49/37, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

IN NOVEMBER.—As Branch Manager or Senior Assistant; aged 29; married; Minor; permanency; varied experience. "Chemist," Lucknow Villa, 8 Olive Mount, Tranmere, Birkenhead.

RETIRED CHEMIST (middle-aged) desires to employ spare time in taking charge; first-class references; moderate terms; reliable. 31 Millman Street, Mecklenburgh Square, W.C.

WANTED, as Assistant or Traveller; Mixed Drug, Oil and Colour; 8 years' experience. 50/18, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

IMPROVER; 4 years' experience; height, 5 ft. 10 in. Elliott, Wass, Oswaldkirk, York.

AS JUNIOR; height, 5 ft. 8 in.; aged 22 years; 6½ years' varied experience; can extract teeth and dispense; good references. C. Hooper, Dowlais, Glamorgan.

JUNIOR or Dispenser to Surgeon; aged 23; in or out-door. H., 25 Matilda Street, Richmond Road, Islington.

ASSISTANT or Branch Manager; 8½ years' Dispensing and General Retail; highest references; disengaged. D. Peacock, Kirbymoorside, Yorks.

AS ASSISTANT (temporary), or to manage Branch; thorough experience; good counterman; 3 years' reference; registered; disengaged. "Omega," 6 Stanmore Street, Caledonian Road, N.

JUNIOR ASSISTANT; 4 years' experience; town preferred. C. Roberts, Harwood Hall, Upminster, Essex.

AS ASSISTANT; outdoors; permanency preferred; aged 23; 6 years' experience; disengaged October 25. F. Rowe, Veet Mill, Drewsteignton, near Chagford.

CLERK.—Position of Invoice Clerk required; experience in large wholesale house; good reference. Apply, 36 Oxford Street, York.

AS ASSISTANT; aged 21; height 5 ft. 8 in.; London and country experience; can extract teeth; disengaged; good references. A. C. Smith, London Road, Rayleigh, Essex.

JUNIOR or Improver; aged 18; 4 years' experience; passed Preliminary; highest references. W. Thomson, 20 Bath Street, Glasgow.

AS ASSISTANT or Branch Manager; temporary or permanent; thorough experience; good references. "Statim," 73 Shakespeare Road, Stoke Newington.

AS MANAGER or Traveller; aged 28; first-class experience; also understands Postal and Telegraph duties; Liverpool or district preferred. L., 26 Gladstone Road, Walton, Liverpool.

APPRENTICESHIP.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

APPRENTICE, in a smart good-class Retail and Dispensing business; moderate premium; exceptional opportunity. Apply, A. Thompson, M.P.S., Pharmaceutical Chemist, The Central Pharmacy, Putney, S.W.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

All Advertisements should reach the Office, 42 Cannon Street, by 5 p.m. on Thursday afternoon, or first post on Friday morning of each week.

HEANLEY & SAUNDERS, Chemists, Peterborough, will be glad of specimens and prices of Book Almanacks; also with gold lettered covers, similar to G. B. Kent's catalogues.

FILTER PRESS BOARDS for sale, quite new and in first-class order. Samples can be inspected at the office of Saml. Hayward & Co., Engineers, 13 Walbrook, City, London, E.C.

BOXES—LIGHT WOOD BOXES.—Boxes suitable for Chemists, for sending Bottles and all kinds of articles through the Post; strong Boxes made for Packing all kinds of articles; samples post free six stamps. Write for sample, giving size you require, stating whether hinged or sliding-lid boxes are wanted, to T. Casbon, Box Maker, Millfield Works, Peterboro'.

AMOST VALUABLE AGENCY.—One Agent wanted in every town and village (where not already appointed) for Birley's preparations of Free Phosphorus; established 50 years; prescribed by medical men of first standing; unstinted supply of 40-page pamphlets, showcards, &c. Price-list and terms of agency, Gordon Murray & Co., 17 Castle Street, Holborn, London.

PRELIMINARY AND MINOR.

ALL STUDENTS who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 38 Pupils passed the last Examinations.

BERNHARDINE ALPINE HERB BITTERS.—In consequence of the death of the Importer and Sole Agent for the United Kingdom, the whole of his stock (amounting to over £300) of this well-known Swiss Tonic is for immediate disposal, either in one lot or in parcels, to suit purchasers; the medical analyses show that the Alpine Herb Bitters are perfectly free from mineral medicaments, and from drastic purgatives of any kind; they consist of a mixture of fluid extracts of a vegetable source, which are quite harmless, but which are at the same time powerful tonic bitters; they contain, besides, ingredients which render them highly carminative and grateful in affections of the stomach. For particulars apply to E. T. Peirson, Chartered Accountant, Coventry.

TELEGRAPHIC ADDRESS: "Chemicus London."

TELEPHONE No. 1852.

EXCHANGE COLUMN.

Remittances payable to **EDWARD HALSE**, at the G.P.O., London, and crossed **MARTIN & CO.****FOR DISPOSAL.****Dental.**

Deutist's celluloid or vulcanite apparatus combined, wet or dry mode; does beautiful work; cash 4*l.* 10*s.* Benedict & Co., Birkenhead.

Dental chair, walnut wood, green plush, movable back fixing in any position, adjustable headrest, nearly new, cost 10*l.* 10*s.*; what offers? Further particulars on applying to Thomas, L.D.S., Deutist, Swansea.

Drugs and Chemicals.

About 28 lbs. good English beeswax; offers wanted. T. Cuthbertson, Chemist, Lostwithiel.

Proprietary Articles.

What offers? 5 doz. Stevenson's pills; 1*½* doz. Eade's pills, 2*s.* 9*d.*; 4 doz. American sugar-coated pills; 1 doz. Senier's remedy; 2 doz. comaline restorer; 2 doz. 1*s.* 1*½**d.*, 1 doz. 2*s.* 9*d.* Baxter's lung preserver. 49*/5.*

Corley's, Maish's, Beetham's, Brodie's, Job's, Barber's, Pott's, Dellar's, Sawyer's, Russian corn plasters; Steel's ivy-leaf extract; Baigent's, Glayser's, Ramsbottom's solvent; Maria Zellar, laxora lozenges; Powell's, Thompson's, Rushbrook's, Sanctis, Pritchard's, Smith & Clarke's, Wright's, Kenrick's, Graham's, Dyson's, Cole's, Buchan's, Abernethy's, Armstrong's, and Pritchard's pills; Ching's, Allnutt's lozenges; Morison's, Faulkner's powders, 1*s.* 1*½**d.*; Kay's throat lozenges, 9*½**d.*; Murray's oamphor, 1*s.*; Cupiss's balls, 1*s.* 9*d.*; Eno's horehound; Smith's pectorine; Frampton's, Blanchard's pills, 2*s.* 9*d.*; all or any 10 off net list; cash or exchange, drugs, patents, sundries. Fowler, Chemist, Portsea.

Formulae.

Don't pay "fancy prices" for recipes until you have given Brooks's a trial. List of 300 post free anywhere. "Glycerine Linctus," elegant, efficacious cough cure; "Peruvian Gout and Rheumatic Pills," "Cinchonessence," resembles Rooke's Elixir, much cheaper; "Glycerine Cream," for chapped hands and all skin affections, pays well; "Hop Tonic," costs under 1*s.* 1*b.*, made instanter; "Bronchelixer," certain cure for bronchitis, &c.; "Corn Solvent," better liked than any advertised; "Toothache Cure," sale certain; "Sauitary Lotion," indispensable nursery adjunct, sweet and clean; "Embrocation Alb." (like Elliman's), best white oil made; "Lincolnshire Relish," mellow, piquant, appetising, "Trix," most enchanting and delicious perfume extant; "Limes and Glycerine," snow-white, perfectly inseparable. Recipes 1*s.* 1*d.* each, 3 for 2*s.* 6*d.*; post free, with full directions and all particulars. Cut this out, and above thirteen will be sent as sample for 10*s.* Tom Brooks, Chemist, Louth, Lincolnshire.

Educational.

Bargain—Muspratt's "Chemistry," 2 vols., nearly new, one guinea. Cooper, Cockermouth. Squire's "Companion," 13th edition, unused, free, 5*s.* Hinde, 175 Uxbridge Road, W. Bentley's "Botany," 8*s.*; Hooker's "Flora," 6*s.*; both in good condition. Lund, Chemist, Bradford. Squire's "Companion," 13th edition, new, free, 5*s.* 6*d.*; B.P., 1867, with additions free, 3*s.* 6*d.* Price, 8 Union Terrace, Notting Hill.

Henfrey's "Botany," new, unsoiled; exchange or sell; Will's "Minor" books wanted; latest editions. 50*/4.*

Twelve vols. of the "Year-book of Pharmacy," years 1874 to 1885 inclusive, with index, offered for 2*l.* 5*s.* Address, J. Stricklett, 161 St. George's Road, Peckham, S.E.

Soda-water Plant.

"Eclipse" turnover filling machine, on stand, 3*l.* N. St. G. Wilcocks, 45 Avon Street, Bath.

Miscellaneous.

Surplus drugs and patents, sale or exchange, cheap. Send for price list to Watson, Chemist, Shipley.

Second-hand sea medicine-chests, similar to Maw's fig. A, deal; few bottles missing. Sydney Count, King's Lynn.

Guaranteed silver penny of King Edward I. (A.D. 1272-1307), 1*s.* 4*d.*, post free. Arthur Graeme, care of Mr. Maish, Chemist, Bristol.

About 4 doz. calf and jeans trusses, single and double; No. 3 "Enterprise" drug mill, scarcely used; Smees's 50-cell battery; what offers for whole or part? Whitrow, Chemist, Tunbridge Wells.

Paregoric and laudanum, 1*s.* 10*d.* per lb.; teething powders (excellent), 4*s.* 6*d.* per gross; Woodnook Lane hair restorer, 1*s.* size, 5*s.* per doz.—this never fails; pure vaseline 6*d.* per lb. Taylor, Chemist, Accrington.

Copper still, holding 15 gallons, with tub for worm, and tin water-bath for distilling perfumes, price 15*s.*; machine for sheep ointment, to be worked either by one or two men, will make cwt. at a time, price 7*l.*; also 30 gross chip boxes (4-oz.), at 1*s.* 3*d.* per gross, patteru sent. Hutchin, Saffron Walden, Essex.

Removing to new premises, we wish to clear out the following:—9×10 gallon jars with taps, earthenware, 4*s.* each; a set of emery sieves; a set of 4 bins; 2×3 gallon glass receivers; 20 gross each of 4 sizes empty German polish tins, gold varnished (half cost price); 5 cwt. seed lac; 1 ton feuegrec seeds, 5*s.* per ton, 6*s.* cwt.; 10 gross 6 slip chimneys, 1*½* in. fittings, 8*s.* per gross; 4 gross 5 comet chimneys, frosted, 2*½* in. fittings, fits parlour or comet burner; 3 gross engraved lotus globes for same burners, fire-proof; 1 gross 10 slip frosted chimneys, 2*½* in. fittings; 2 gross 5 slip chimneys, 1*¼* fittings, 8*s.* per gross; 2 gross 7 flange chimneys, small bulge, 6*s.* per gross; 6 doz. etched lotus globes for Dietz's paragon and duplex burners, cost over 12*s.* per doz., 3*s.* per doz.; 3 cwt. chlorate potash; 10 cwt. olein acid; 1*½* cwt. servant's friend black-lead, 1*s.* and 2*o.* packets, 16*s.* cwt.; 6 doz. lamp founts, painted alabaster, cost 12*s.* per doz., 3*s.* per doz.; 4 doz. drop-in opal founts; 3 doz. 3-light chandeliers, list price 15*s.* each, 4*s.* each; 25 gross ½ oz. French shouldered vials; a ton common Cologne black-lead, 5*s.* cwt.; 1 ton cart grease, 5*s.*; a pair of edge runners for grinding; a ton American residuum; no reasonable offer refused. B. Newham & Co., Sheffield.

Shop Fittings.

Upright counter-case about 2 ft. high by 30 in. long, as fig. A 54. Smart, Littlehampton.

A bargain—Fittings, including bottles, jars, &c., of a branch in Lancashire. Apply for particulars, F., 149 Duke Street, Liverpool.

Four ft. wall case, A 88, 8*l.* 10*s.*; 5 ft. wall case, A 87, glass-fronted cupboards, under 8*l.*; show stand, A 38, circular end, 60*s.*; sponge case, A 43, 95*s.*, A 41, 60*s.*; 6 ft. 3 in. bent plate-glass case on table, carved legs as a 50 to lift up on top, 9*l.*; 5 ft. 6 in. glass-fronted counter with screen on top, marble centre, cases at each side, silvered-glass back, 9*l.*; 14 ft. rim mahogany-fronted drawers, glass knobs and glass labels, bottle lockers under, shelving and cornice over, 9*l.*; 3 8-gall. carboys and stands, cut stoppers, 22*s.* 6*d.* each; 3 6-gall. carboys and stands, cut stoppers, 15*s.* each; 2 12-gall. carboys, cut stoppers, 40*s.* each; 1 16-gall. carboy, cut stoppers, 50*s.*; specie jars, royal arms, 80*s.* pair; displacement apparatus as A 53, 20*s.*; and a quantity of other jars, bottles, &c. E. Natali, 207 Old Street, London, E.C.

Two ft. bent plate-class cases, A 3, 30*s.*; 2 ft. 6*in.*, 35*s.*; 3 ft., 40*s.*; 5 ft. 6*in.*, 65*s.*; A 8, 6 ft. 3*in.* long, 60*s.*; 5 ft., 50*s.*; 5 ft., as fig. A 2, 2*l.*; revolving tooth-brush case, as A 10, 50*s.*; A 10, to open at back, 30*s.*; 5 ft. 6*in.* as A 15, 80*s.*; 4 ft., 70*s.*; 2 ft. 6*in.*, 40*s.*; 2 ft. 6*in.* A 16, 40*s.*; 3 ft., 45*s.*; 4 ft., 65*s.*; 4 ft. 6*in.*, 80*s.*; 4 ft. long as A 17, 70*s.*; A 18, 5 ft. 3*in.* long, 95*s.*; 6 ft. long, 5*l.*; desk and case as A 31, 2 ft. long, 55*s.*; dispensing screens, A 54, 4 ft. long, 70*s.*; A 55, 5 ft. long, 6 ft. long, 7 ft. dispensing screen, marble centre with plate-glass mirror at back, glass cases at each side, silvered backs, movable shelves, 7*l.*; pill machines, new, 3*½* and 5*grs.*, to cut 24, 16*s.*; soda-water stand as A 57; mahogany top counters, panel fronts painted as mahogany, 5*ft.*, 6*ft.*, 7*ft.* 6*in.* in; glass-fronted counters, 4 ft. long, 7 ft. 6*in.* long; nests, mahogany-fronted drawers, 4 ft. long, 6*ft.*, 8*ft.*, 10*ft.* 12*ft.* long; nests, counter drawers for paper, labels, till, &c.; also a quantity of wall, counter, and other cases, E. Natali, 207 Old Street, London, E.C.

WANTED.

Several steam evaporating pans, 15 to 30 gals. 50/31.

Recent edition Attfield's "Chemistry," Smith, 10 Magdalene Street, Oxford.

Model cod-oil boats; chemical balance; phar-macy microscope. Samuel Lawrence. Oban. *Chemist and Druggist* "Art of Dispensing." Alexander Weir, Insch, Aberdeenshire.

Attfield's "Chemistry," 1886 edition. Frank Browne, 32 Gold Street, Northampton.

A glass counter-case, 23 in. high and 5 ft. 5 in. in length. L., 34 High Street, Putney.

Squire's "Companion," latest edition; *Chemist and Druggist* for August and September 1885 Dodds, Hessle Road, Hull.

Suppository mould for twelve; also Dun's "Veterinary Medicines," latest edition. Wood, Chemist, Windsor.

Wanted to purchase, dental specimens for show case, partial sets preferred. C. R. Hulland, 1 Palace Road, East Molesley.

Counter-case about 4 ft. × 1*½* ft., to open at back, bent glass preferred. Baldwin, 67 High Street, Croydon.

Will's "Postal Lectures" (Minor), and "Practical Botany"; state lowest price. "Student," 70 Burton Road, Brixton, S.W.

Two pear-shaped 10-gall. carboys, 35 in. high to top of stopper; also one show-jar, 33 in. high to top of cover, 2 mirrors 6 ft. high by 2 ft. wide, and 1 6 ft. high by 1*½* ft. wide; all black ebonised frames. T. R. Jeans, Chemist, 1 Broad Street, Pendleton, Manchester.

